

IMPACT OF TARGETED TRAINING ON MIDDLE SCHOOL TEACHERS'  
KNOWLEDGE, FREQUENCY OF USE, AND CONFIDENCE IN IDENTIFICATION,  
PREVENTION, AND INTERVENTION OF RELATIONAL AGGRESSION AMONG  
STUDENTS

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## ABSTRACT

The present study examined teachers' knowledge, frequency of use, and confidence in identifying, preventing, and intervening in relational aggression in their classrooms and schools. A teacher training was implemented and evaluated using follow-up surveys in a pre-test/post-test design. Participants were middle school teachers from 11 city and county schools in the Southeast region of the United States. Knowledge and frequency of use were assessed through an adapted form of the Teacher Inventory of Skills and Knowledge (Newman, Horne, & Bartolomucci, 2000). Teacher confidence was assessed using measures developed by Goryl, Neilsen-Hewett, and Sweller (2013). This design included two survey points. Teachers received the first survey on self-perceived knowledge, frequency of use, and confidence related to relational aggression as a way to collect baseline data. Three-months after the teacher training, a second survey was evaluated long-term effects. Teachers initially reported high levels of total knowledge and total frequency of use, but generally *lacked* confidence. Another important distinction was gender. Results indicate males' self-perceptions of their knowledge, frequency of use, and confidence related to relational aggression is higher than female counterparts. This is consistent with other literature on self-perceived confidence and gender. Both confidence and knowledge increased for teachers who participated in the targeted in-service training while there was no effect on confidence for the control group. This supports past research (Bowllan, 2011; Olweus et al., 2002).

## DEDICATION

I dedicate this work to my family. To my husband for always being my sounding board, my counselor, and my copyeditor. To my son, Finley, and my daughter, Monroe. Thank you for being my inspiration throughout this work. I hope this work equally inspires you some day.

## LIST OF ABBREVIATIONS AND SYMBOLS

AERA	American Educational Research Association
APA	American Psychological Association
NEA	National Education Association
PRAISE	Preventing Relational Aggression In Schools Everyday
TISK	Teacher Inventory of Skills and Knowledge

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## CHAPTER 1

### INTRODUCTION

Bullying among youth has become a regular topic in the media and public discourse over the last decade. Bullying has been defined as unwanted aggression that intends to harm an individual, is often accompanied by an imbalance in power, and is often repetitive in nature (Batsche & Porter, 2006). Perceptions regarding bullying behavior vary between students and teachers, and these differing opinions often result in undetected or unreported incidents of bullying (National Education Association, 2011; Walker, 2010; Yoon & Kerber, 2003). Relational aggression is one form of bullying that is often undetected because relational aggression is viewed by some as a *natural* activity among students (Young, Nelson, Hottle, Warburton, & Young, 2010).

Relational aggression is a form of bullying that is most often used to manipulate social relationships, achieve personal goals, and/or obtain revenge from a perceived wrongdoing (Crick & Grotpeter, 1995). The most common types of relational aggression include exclusion, rumor spreading, name-calling, and gossiping. Relational aggression can start in children as young as three years old, but it becomes particularly complex as children mature (Fanger, Frankel, & Hazen, 2012; Walker, 2010; Young et al., 2010). Around late elementary and early middle school, relational aggression reaches its peak in terms of prevalence (Larson, 2010; Werner & Hill, 2010). Reynolds and Repetti (2010) found that *every* female participant of their study (between ages 14.4 and 16.7 years) was able to identify at least one incident of relational aggression in which they were a victim or aggressor. Further, research (e.g., Leadbetter, 2010;

Menard & Grotzinger, 2011; Young et al., 2010) has indicated that perpetrators of relational aggression are often friends with the victims. Relational aggressors are sometimes perceived as popular and socially powerful by peers (Espelage & Swearer, 2004). Motivation for relational aggression includes social support and social status (Pronk & Zimmer-Gembeck, 2010).

Researchers (e.g., Leadbetter, 2010; Raskauskas & Stoltz, 2004) have suggested that because of the manipulative and covert nature of relational aggression, the behaviors associated with it often are easy to deny and overlook. The effects of relational aggression may be harmful to both the victim and the perpetrator (Radliff & Joseph, 2011). Choi, Johnson, and Johnson (2011) suggested that reducing victimization is important because some victims of relational aggression may have a tendency toward depression, loneliness, and poor self-esteem. Further, victims may be socially anxious and lack status and friends (e.g., Haynie, Nansel, Eitel, Crump, & Saylor, 2001; Juvonen, Graham, & Shuster, 2003; Olweus, 1994).

Investigations of gender differences regarding relational aggression effects have produced mixed results in the literature (e.g., Kistner et al., 2010; Letendre & Smith, 2011; Solberg, Olweus, & Endresen, 2007; Werner & Crick, 2004). Although some scholars have suggested that relational aggression is an issue for female students more often than for male students (e.g., Capella & Weinstein, 2006; Cullerton-Sen & Crick, 2005; Werner & Crick, 2004), other research has indicated that both girls and boys engage in and are affected by relational aggression (Werner & Crick, 2004). Despite this uncertain area, the literature has remained consistent in its indication that gender often determines how relational aggression manifests in that girls tend to engage in behaviors that are verbally hostile and passively aggressive (i.e. holding grudges, spreading rumors whereas boys are more direct such as name-calling and social

isolation (e.g., Kistner et al., 2010; Murray-Close et al., 2006; Pronk & Zimmer-Gembeck, 2010).

The literature on relational aggression specifically and bullying in general suggested that several school factors can play a role in preventing relational aggression (Letendre & Smith, 2011; Young et al., 2010; Yoon, Barton, & Taiariol, 2004). According to this literature, schools need to provide teachers and other school staff with information regarding the school's position on bullying and its consequences for students. According to the 2011 NEA survey of educators and school personnel, the majority of respondents believed that they had a responsibility to address bullying behavior as part of their job duties. Further, Goryl, Neilsen-Hewett, and Sweller (2013) found that school policies and procedures often fail to address acts of relational aggression acts.

Research also presented several factors associated with teachers with regard to relational aggression (Werner & Hill, 2010). Research has suggested that teachers are at least partially aware of the effects related to bullying, but that they are often less aware of the effects tied to relational aggression specifically (Owens, Shute, & Slee, 2000). Additionally, teachers may lack knowledge of definitions, types, and strategies for identifying relational aggression among their students (e.g., Elsaesser, Gorman-Smith, & Henry, 2013; Faris and Felmlee, 2014; Mishna, Scarcello, Pepler, & Wiener, 2005; Bradshaw, Waasdorp, O'Brennan, & Gulemetova, 2011). Perhaps because of this, teachers also indicate willingness for training about relational aggression. However, lack of teacher training may lead, perhaps naturally, to lowered confidence among teachers in their ability to recognize relational aggression and in their ability and initiative to successfully intervene (Mishna et al., 2005). Howard, Horne, and Jolliff (2001) determined

“teachers will not intervene in bullying behaviors consistently until they feel adequately equipped to act” (p. 184).

Howard et al. (2001); Orpinas, Horne, and Staniszewski, (2003); and Newman-Carlson and Horne (2004) conducted examinations of the effectiveness of the Bully Busters program and determined teachers had an increase in knowledge related to bullying interventions as well as skills to implement interventions. They also reported an increase in teacher self-efficacy in working with students. All three studies found a reduction in aggressive behaviors among students.

### **Statement of the Problem**

The American Psychiatric Association (APA, 2014) emphasized the need for teachers to have a better understanding of relational bullying and to understand what methods to use to prevent and intervene in bullying situations. Data show that 70 percent of adolescents have reported an experience with a form of bullying (APA, 2014).

Research that specifically investigated relational aggression is sparse. Walker (2010) discussed how new and underdeveloped relational aggression research is, noting that the majority of bullying research is focused on more direct forms of aggression. The current literature on relational aggression (Kistner et al., 2010; Letendre & Smith, 2011; Solberg et al., 2007) has emphasized the need to address issues related to age, gender differences, individual and contextual differences, and school factors. The need to better understand what teachers know about relational aggression and their perceived support from the school district they work in, as well as their ability to address relational aggression with their students, is also emphasized (Mathieson & Crick, 2010; Nixon & Werner, 2010). Further, Walker (2010) stated that current research indicates general education teachers perceived relational aggression to be the student

responsibility and issue; therefore, it was important to train teachers to recognize peer-based forms of relational aggression and the impact. Also important was the need to study teacher confidence with regard to relational aggression issues (Goryl et al., 2013). This section of research and the need for continued scholarship led to the inclusion of Research Question 1 in this dissertation study, which examined teachers' self-reported perceptions regarding knowledge in identification, prevention, and intervention; frequency of use in identification, prevention, and intervention; and confidence in identification, prevention, and intervention.

Several researchers reported areas of research that need further review. For example, Yoon and Kerber (2003) discussed the limited information about teacher characteristics that relate to their responses to aggressive behaviors. Further, Mishna et al. (2005) identified the need for exploration of links between teachers' past experiences with victimization and their responses and interventions for bullying incidents among students. Finally, research also indicated that it is important to understand how teachers' perceptions shape their responses toward relational aggression (e.g., Page & Smith, 2012; Stauffer, Heath, Coyne, & Ferrin, 2012). The gap in the literature indicated by Yoon and Kerber (2003) and Mishna et al. (2005) led to the inclusion of Research Question 2 in this dissertation study, which examined teacher factors that relate to their *knowledge* in identification, prevention, and intervention; *frequency of use* in identification, prevention, and intervention; and *confidence* in identification, prevention, and intervention.

Implications for practice included the need for basic teacher training focused on describing relational aggression, examining its related issues, and debunking myths related to relational aggression (Merrell, Buchanan, & Tran, 2006). Further, research indicated a need to develop programming to assist teachers with knowledge and techniques of how to intervene effectively in student aggression (Boxer, Musher-Eizenman, Dubow, Danner, & Heretick, 2006).

Finally, studies have shown that a majority of teachers believe they would benefit from training (Bradshaw et al., 2011). This line of research led to the inclusion of Research Question 3, which examined the impact of a targeted in-service about relational aggression on middle school teachers. This examination was to occur in the week following the in-service.

Research also indicated the need for a systematic, long-term assessment of the development of teachers' skills in identifying and responding to relational aggression as well as evaluate the efficacy of relational aggression training and consultation (Kahn, Jones, & Weiland, 2012; Ojanen, Findley, & Fuller, 2012; Walker, 2012). This led to the inclusion of the longitudinal outcomes component of Research Question 3 of this dissertation study, which examined participants three months after the targeted in-service.

### **Purpose of Study**

Much of the literature related to bullying behaviors among students in schools focused on student perceptions as well as effectiveness of interventions based on student and teacher reports (e.g., Kistner et al., 2010; Letendre & Smith, 2011; Solberg et al., 2007). Often the literature discussed bullying in the broadest sense with little attention being paid to specific forms of bullying (e.g., Bradshaw et al., 2011; Bradshaw & Waasdorp, 2009; Espelage, Polanin, & Low, 2014; Green, Felix, Sharkey, Furlong, & Kras, 2013; Hoglund, Hosan, & Leadbetter, 2012; Lim & Ang, 2009; Menard & Grotspeter, 2011; Young, Boye, & Nelson, 2006). Some literature that addressed relational aggression used student perceptions and compared this form of bullying with more overt and direct forms (Dempsey, Sulkowski, Nichols, & Storch, 2009; Kahn et al., 2012; Kistner et al., 2010). In this literature, when compared with overt forms of aggression, regardless of if the behaviors meet the traditional criteria for bullying, students and adults almost always indicated that physical aggression is more harmful and severe than relationally aggressive

behaviors (see especially Kahn et al., 2012). Further, relational aggression has often been seen by teachers and other school staff as part of the developmental process (Page & Smith, 2012), even though the literature has indicated it can be just as harmful if not more harmful than overt forms of aggression due to the fact it can go undetected and unreported (Crozier & Skliopidou, 2002; Young et al, 2010). Finally, school systems often have not addressed relational aggression specifically in their policies and procedures that target bullying behavior (Goryl et al., 2013). In addition, many prevention and intervention programs either have not focused on relational aggression as a component of bullying or have only targeted female students when discussing this form of bullying (Bowllan, 2011; Capella & Weinstein, 2006; Hoglund et al, 2012).

Teachers can play a significant role in identifying, preventing, intervening, and setting the attitude of their classroom with regard to relational aggressive behaviors among students (Kahn et al., 2012; Page & Smith, 2012; Stauffer et al., 2012; Yoon et al., 2004; Yoon & Kerber, 2003). However, there appeared to be a gap in the literature related to what teachers know about relational aggression, what they perceive as their professional roles related to relational aggression among their students, and their confidence in identifying relational aggression and intervening (Faris & Felmlee, 2014; Page & Smith, 2012; Stauffer et al., 2012). Thus, one purpose of the dissertation study was to better understand middle school teachers' self-reported perceptions of their (a) *knowledge* about identification, prevention, and intervention strategies for relational aggression; (b) *frequency* of using identification, prevention, and intervention strategies for relational aggression among their own students; and (c) *confidence* related to identifying, preventing, and intervening in relational aggression in their classroom.

In addition, a second purpose of this study was to investigate the effects of a comprehensive relational aggression in-service training on the following variables: (a) teachers'

knowledge about identification, prevention, and intervention strategies for relational aggression; (b) frequency of using identification, prevention, and intervention strategies with their students relational aggression; and (c) confidence related to identifying, preventing, and intervening in relational aggression in their classroom. Pretest and post-test in-service measures for the variables obtained from middle school teachers who participated in a one-hour targeted in-service were compared to those of a control group that did not receive the training. Post in-service data for the measures was collected one week after the in-service as well as three months later to assess long-term effects of the in-service

### **Rationale of Study**

Even though teachers have often been expected to identify aggressive behaviors among students as well as provide direct intervention, their understanding, knowledge, and confidence related to relational aggression has not been adequately assessed by the literature (Goryl et al., 2013; Faris & Felmlee, 2014; Kahn et al., 2012; Leadbetter, 2010; Walker, 2010). The dissertation study aimed to contribute to the literature on relational aggression by focusing on middle school teachers' knowledge in identification, prevention, and intervention; frequency of use in identification, prevention, and intervention; and confidence in identification, prevention, and intervention. The majority of relational aggression studies have indicated that teacher training is an essential component to better addressing relationally aggressive behaviors among students (e.g., Elsaesser et al., 2013; Yoon et al., 2004). However, there was a gap in the literature in terms of practical applications related to trainings for teachers focused on relational aggression (Bradshaw et al., 2011; Kahn et al., 2012; Merrell et al., 2006). Therefore, this study also included a targeted in-service component that focuses specifically on increasing teachers' knowledge of relational aggression. The 1-week follow-up survey was included to assess

immediate impact and a three-month follow up survey was utilized to determine the longitudinal impact of the training.

The dissertation study assessed three variables (knowledge in identification, prevention, and intervention; frequency of use in identification, prevention, and intervention; and confidence in identification, prevention, and intervention) regarding relational aggression, and examined these variables within teachers in middle school settings, from city and county school districts. All the participants received an initial survey that evaluated the knowledge, frequency, and confidence variables previously mentioned. About half of the participants participated in a targeted teacher in-service that focused on relational aggression. Both the treatment and control groups completed a follow-up survey immediately following the administration of the in-service as well as an additional survey that occurred three months after the in-service to determine the long-term effects of the in-service related to the dependent variables (knowledge in identification, prevention, and intervention; frequency of use in identification, prevention, and intervention; and confidence in identification, prevention, and intervention).

### **Research Questions**

To examine middle school teachers' knowledge in identification, prevention, and intervention; frequency of use in identification, prevention, and intervention; and confidence in identification, prevention, and intervention in relational aggression among students, this study was guided by the following research questions:

#### **Research Question 1: Middle School Teachers' Reported Self-Perceptions**

What are middle school teachers' reported self-perceptions of the following:

- a) Knowledge about identification, prevention, and intervention strategies for relational aggression;

- b) Frequency in using identification, prevention, and intervention strategies for relational aggression among their own students;
- c) Confidence in identifying, preventing, and intervening in relational aggression among their students.

**Research Question 2: Variables Related to Middle School Teachers’ Reported Self-Perceptions**

Do teacher demographic variables (highest degree achieved, years of experience teaching, type of class/subject taught, gender, and race/ethnicity) relate to middle school teachers’ reported self-perceptions of the following:

- a) Knowledge about identification, prevention, and intervention strategies for relational aggression;
- b) Frequency in using identification, prevention, and intervention strategies for relational aggression among their own students;
- c) Confidence in identifying, preventing, and intervening in relational aggression among their students.

**Research Question 3: Differences Between Middle School Teachers’ Reported Self-Perceptions Post In-Service.**

Is there a difference between middle school teachers who participate in a targeted in-service compared to teachers who do not participate in a targeted in-service *before the targeted in-service and three-month follow-up survey* regarding reported self-perceptions of the following:

- a) Knowledge about identification, prevention, and intervention strategies for relational aggression;

- b) Frequency in using identification, prevention, and intervention strategies for relational aggression among their own students;
- c) Confidence in identifying, preventing, and intervening in relational aggression among their students.

### **Significance of the Study**

The dissertation study has clear implications for both relational aggression literature as well as practical applications in schools. The study extended current literature and worked to fill the gaps regarding teacher knowledge, frequency of use, and confidence in identification, prevention, and intervention of relational aggression. It also examined teacher factors that related to their knowledge, frequency of use, and confidence in identification, prevention, and intervention of relational aggression. Last, the study examined the outcomes of a targeted in-service for teachers that focus specifically on relational aggression, prevention, and intervention strategies and techniques.

Perhaps the most compelling and exciting aspect of any research is when clear, practical implications are present. The dissertation study has such implications for school systems as well as school psychologists. The inclusion of the targeted in-service component and a study of its impact provides schools with applicable data as they build their own strategies and policies regarding bullying and relational aggression. This data could also be used by school psychologists as they provide teachers and school personnel with evidence-based intervention and training opportunities. School psychologists are considered experts in collecting and reviewing data. They could collaborate with teachers by providing important information and guidance for helping to prevent and intervene in relational aggression among students.

Specifically, the dissertation study provides information about how much knowledge in identification, prevention, and intervention; frequency of use in identification, prevention, and intervention; and confidence in identification, prevention, and intervention teachers possess regarding relational aggression as well as the need for schools to provide training on those issues.

### **Limitations of the Study**

This study contained several elements that served as potential limitations. These limitations involved the sample and the instruments and pertain to generalizability, a potentially low response rate, and instrumentation. Regarding the sample, the population of interest (middle school teachers in southeastern United States) was couched in a particular culture. It is possible that other cultures would have a slightly or greatly different view of bullying and relational aggression. Due to the limited nature of the sample, the results of the study may not be generalizable to different regions, cultures, grade levels, or schools.

Second, regarding the sample, it is possible that teachers or schools within the study will have varying experiences, training, and other influences that may inform their knowledge, frequency of use, and confidence in identification, prevention, and intervention regarding relational aggression. These potential confounds are accounted for to the extent possible through collection of demographic information, use of the pre-test-post-test design, and the random assignment of participants into treatment and control groups.

Third, teachers in this study were busy professionals and it seemed that some had difficulty completing 1-week follow-up survey and the 3-month follow-up survey. Teachers reported an inability to complete the survey within the given time (typically several days between survey drop-off and pick-up). Additionally, administrators and staff also noted challenges related to the academic schedule and completion of the surveys. The teachers' busy

schedules became most problematic for the 1-week follow-up survey, which had a markedly lower response rate.

Fourth, due to the low response rate as well as insufficient demographic data, the 1-week follow-up survey was dropped from the study. The pretest and the 3-month follow-up surveys, however, both had a sufficient response rate and complete demographic data.

Fifth, the confidence scale was made up of three items. Though it was initially intended that each item would represent a standalone dependent variable, it was later decided that, due to validity concerns, the group of confidence items would combine to form a single variable, total confidence.

Sixth, surveys evaluated teacher self-reports related to their confidence and understanding in relational aggression in their classrooms. Thus, social desirability may have been a factor in responses.

A seventh limitation, regarding measurement, is that all measures and the teacher training used in this study were either adapted or newly created. Though a pilot test was included to assess validity and reliability of both the measures and the treatment, these items have not gone through the testing and replication that other, more-established measures have gone through.

Finally, regarding the procedures of the study, the three-month follow up assessment of teacher knowledge, frequency of use, and confidence in identification, prevention, and intervention of relational aggression may have been confounded by other events and experiences. Schools might have offered other trainings, teachers may have had impactful experiences dealing with bullies, schools may have experienced teacher turnover, and so on. These events and experiences may have had a great impact on the outcome of the three-month follow-up assessment.

## **Definition of Key Terms**

### **Relational Aggression**

Conceptual: Relational aggression was defined as negative social behaviors that are covert and/or manipulative with the intent to harm relationships, social roles, and/or social standing (Mathieson & Crick, 2010; Pronk & Zimmer-Gembeck, 2010; Radliff & Joseph, 2011; Raskauskas & Stoltz, 2004; Young et al., 2006; Young et al., 2010). In addition, there must be a power imbalance, a repetition of the behaviors, and social manipulation (Mathieson & Crick, 2010).

### **Knowledge**

Conceptual: Knowledge is defined as middle school teachers' knowledge about relational aggression and specific behaviors of relational aggression as well as prevention and intervention strategies and techniques specific to relational aggression behaviors. Knowledge is often based on facts, objectives and can be critically examined (Pajares, 1992).

Operational: Knowledge was assessed on a survey through an adapted version of the Teacher Inventory of Skills and Knowledge (TISK, Newman et al., 2000; see Appendix A). Every item on the TISK assesses teachers' knowledge related to identification, prevention, and interventions for relational aggression as well as specific strategies, techniques, and resources available for preventing and intervening. Items will be added to the TISK instrument to specifically address knowledge of relational aggression in terms of definition, types, and behaviors and prevention and intervention strategies. All knowledge items are measured on a 3-point scale of Unfamiliar, Somewhat Familiar, and Very Familiar.

## **Frequency of Use**

Conceptual: Frequency of use was defined as how regularly middle school teachers' identified relational aggressive acts, actively used of strategies to prevent relational aggression among their students, and implemented intervention techniques when relational aggression occurs.

Operational: Frequency of use was assessed in the adapted TISK (Newman et al., 2000) survey by asking participants how frequently they identify relational aggression behaviors among their students as well as utilize specific prevention and intervention strategies of relational aggression with their students. Frequency of use items were added to the TISK instrument to specifically how often teachers report using identification, prevention, and intervention strategies for relational aggression with their own students. All frequency of use items are measured on a 3-point scale of Never, Sometimes, and Often.

## **Confidence**

Conceptual: Confidence was defined as middle school teachers' own beliefs in their ability and effectiveness to identify relational aggression behaviors among their students as well as utilize specific prevention and intervention strategies of relational aggression with their students. .

Operational: Confidence was assessed using Goryl et al. (2013) five-point Likert scale survey questions. These three questions have been adapted to address relational aggression specifically rather than their use by Goryl et al. to assess confidence related bullying. The questions are: How confident do you feel in identifying a relational aggression incident?; How confident do you feel in implementing prevention strategies related to relational aggression; and If you witnessed a relational aggression act, how confident would you be in intervening?

Possible responses range from 1 (not at all confident) to 2 (somewhat confident) to 3 (not sure) to 4 (confident) to 5 (very confident). Though each of the three questions regarding confidence was originally designed to serve as a standalone dependent variable (confidence-identification, confidence-prevention, and confidence-intervention), it was later determined that, due to validity concerns, the three items would simply serve as components of a single variable called *total confidence*.

Knowledge and frequency of use were assessed using three categories (identification, prevention, and intervention) as well as a *total* score for both knowledge and frequency of use. Total knowledge was a combination of all items related to knowledge. Total frequency of use was a combination of all items related to frequency of use. As previously mentioned, confidence items were combined to form a single dependent variable, total confidence. The choice to use only total confidence was done after considering validity issues of confidence-intervention, confidence-prevention, and confidence-identification.

### **Identification**

Conceptual: Identification was defined as middle school teachers' recognition of student engagement in types and behaviors associated with relational aggression including both aggressor and victim as well as define relational aggression.

Operational: Identification was assessed in the adapted TISK as part of the assessments for knowledge and frequency of use. Items were added to the TISK that specifically addressed identification in terms of relational aggression definition, types, and behaviors. Last, the total confidence variable had an item related to teacher's confidence related to identification.

## **Prevention**

Conceptual: Prevention was defined as one's ability to implement strategies and techniques that deter the on-set relationally aggressive behaviors and encourage positive social interactions among students. Through prevention, individuals establish a culture that reduces the likelihood of the relationally aggressive behaviors from occurring.

Operational: Prevention was assessed in the adapted TISK as part of the assessments for knowledge and frequency of use. Would help to give a few examples or description of prevention items Last, the total confidence variable had an item that measured teacher's confidence related to prevention practices.

## **Intervention**

Conceptual: Intervention was defined as one's ability to implement strategies and techniques that address relationally aggressive behaviors identified in students and encourage positive social interactions, perspective taking, and problem solving among students.

Intervention is the process of an individual taking action against or responding to an act of relational aggression, for both aggressor and victim.

Operational: Intervention was assessed in the adapted TISK as part of the assessments for knowledge and frequency of use. Additionally, the total confidence will also have an item that measure teacher's confidence related to intervention strategies and techniques.

## CHAPTER 2

### REVIEW OF THE LITERATURE

The following review of the literature outlines key themes by first defining the broad concept of bullying in school settings. The impact of bullying behavior among youth has been extensively studied over the past decade (American Education Research Association, 2013; Batsche & Porter, 2006; Faris & Felmlee, 2014; Swearer, Collins, Fluke, & Strawhun, 2012; Walker, 2010). The research has pointed to the clear consequences of bullying behavior for both victims as well as perpetrators (AERA, 2013; Batsche & Porter, 2006; Swearer et al., 2012). A discussion of specific forms of bullying, such as relational aggression, must first establish a definition and trends related to *general* bullying behavior.

Subsequently, a form of bullying known as relational aggression will be discussed. Relational aggression is considered in the literature as the invisible form of bullying. Relational aggression occurs among students as a means to achieve personal social goals and status among peers (Ojanen, Findley, & Fuller, 2012; Walker, 2010). Relational aggression is an important area of research due to the fact the behaviors are not overt, physical attacks that are easily intervened on by bystanders (Rashauskas & Stoltz, 2004; Yoon et al., 2004). Rather relational aggression occurs through manipulative social interactions among students (Young et al., 2010). The relational aggression section will include definitions, reasons for engaging in relational aggressive behaviors, the aggressive acts commonly associated with relational aggression according to the current literature, and the impact of relational aggression on both victim and aggressor. Based on the current literature focused on relational aggression, several group

differences have emerged. Of these gender, social group identity, and grade and/or developmental level appear to be the most prominent (Hoglund et al., 2012; Pokhrel, Sussman, Black, & Sun, 2010; Pronk & Zimmer-Gembeck, 2010; Solberg et al., 2007). However, two other factors also appear to play a role in relational aggression among students. These are race/ethnicity and socio-economic status, but there is a need for future research when accounting for these variables (AERA, 2013; Faris & Felmlee, 2014; Sweater et al., 2012).

Schools play an important role in addressing bullying behaviors (Boxer et al., 2006; Bradshaw & Waasdorp, 2009; Yoon et al., 2004). In recent years, it has become commonplace for school systems to provide anti-bullying policies and guidelines to the staff and students. In light of this trend, this review will examine different school levels' understanding of different bullying types, involvement in combating the behaviors as well as their perspectives on their role. Secondly, prevention and intervention strategies that have been implemented in school settings will be discussed in terms of effectiveness based on student and staff perceptions. Lastly, staff awareness and training related to the policies and prevention/intervention strategies will be reviewed.

Teachers play a critical role in identifying and intervening on relational aggressive acts among students (Walker, 2010; Yoon et al., 2004). Teachers not only educate students academically but also contribute to their knowledge of social skills, building self-esteem, and learning effective problem-solving and coping strategies (Elsaesser et al., 2013; Yoon et al., 2004). The final component of this review will focus on teacher factors including their identification of relational aggression among their students, their training related to relational aggression specifically, and their attitudes and confidence about their role, knowledge, and the impact relational aggression has on students. Demographic information including teaching

experience, degree, grade level taught, race, and gender, will be examined to determine the impact it has on the above factors.

### **Bullying**

“The national discourse on bullying highlights a predominant, tragic pattern of vulnerable, socially marginal youth who are harassed, sometimes to death” (Faris and Felmlee, 2014, p. 251). The literature defines bullying as a form of unwanted aggressive behavior that focuses on creating harm to another individual, involves a power differential that is either real or perceived between the two parties, and is repeated or could possibly be repeated (AERA, 2013; Batsche & Porter, 2006; Graham, 2014; U.S. Department of Health and Human Services, 2014). Even with a definition that appears to be well-known and regularly used among researchers, Green et al. (2013) found ambiguity in the term “bully” among participants when completing two different scales on bullying behavior. The term “bully” elicited different prevalence rates when a definition was provided. In fact, in a 2011 nationwide study of bullying, assessed from a teacher’s perspective, the National Education Association (NEA/2011) supported the previous literature that indicated teachers and school staff perceived bullying behaviors among students and prevention and intervention strategies *differently* than students. Further complicating this concern is the AERA (2013) Task Force’s suggestion that due to the varying opinions on bullying definitions, there are inconsistencies regarding reporting of the behaviors.

According to the American Psychiatric Association (Graham, 2014), bullying can occur in four different forms: physical, verbal, relational, and cyber. Batsche and Porter (2006) referred to the different forms of bullying as: direct which includes proactive and reactive, indirect or relational, and reputational. Bullying behaviors vary in type and severity (AERA, 2013). Further, NASP (2010) discussed these forms of bullying and also addresses electronic bullying which

includes any form of bullying that occurs through the use of an electronic device such as a cell phone or computer; which is also referred to as cyberbullying (USDHHS, 2014).

Regardless of the form of bullying, all the literature agrees, bullying can create developmental problems that include externalizing as well as internalizing difficulties (Cappella & Weinstein, 2006; Cullerton-Sen & Crick, 2005; Mathieson & Crick, 2010; Young et al., 2010). Swearer et al. (2012) highlighted the effects bullying has on perpetrators and bully-victims, suggesting low self-esteem, poor problem-solving and coping skills, and future legal issues.

### **Definitions and Characteristics of Relational Aggression**

In the majority of the literature (Mathieson & Crick, 2010; Pronk & Zimmer-Gembeck, 2010; Radliff & Joseph, 2011; Raskauskas & Stoltz, 2004; Young et al., 2006), the most frequently cited definition of relational aggression is from the researchers, Crick and Grotpeter (1995). They define relational aggression as negative social behaviors that are intended to harm relationships, social roles, and/or social standing. Young et al. (2010) echoed this definition, stating that relational aggression is covert or manipulative behavior within a relationship with the intent to cause damage. The Crick and Grotpeter (1995) definition includes several significant characteristics of relational aggression; these include a power imbalance, a repetition of behavior, social manipulation, damage to relationships, and goal-seeking behavior. An important distinction between relational aggression and other types of bullying is that relational aggression is a *non-physical* form of aggression and at times is associated with or even referred to as indirect or social aggression (Leadbetter, 2010). Young et al. (2010) continued this by adding that relational aggression is particularly difficult to detect due to the subtleness of its enactment by (often) skilled perpetrators. In fact, Raskauskas and Stolz (2004) found that 8th grade girls had difficulty *finding* relational aggression among a series of vignettes. The participants in the

Raskauskas and Stolz study reported that there are so many ways that relational aggression can be used and that it is often ambiguous and inconspicuous. Because of the ambiguous and inconspicuous nature of relational aggression, perpetrators can easily deny its use, and teachers can easily ignore its presence or write it off as typical social behaviors (Simmons, 2002). However, relational aggression is certainly occurring with great regularity as almost all girls have reported engaging in and being victimized through relationally aggressive acts (Moretti, Holland, & McKay, 2001; Putallaz et al., 2007).

Research indicates that adolescents may engage in relational aggression (covert behavior) as a way to express their frustration whereas younger children tend to express their frustration in overt behaviors (see especially Mathieson & Crick, 2010; Ojanen et al., 2012; Pronk & Zimmer-Gembeck, 2010; Radliff & Joseph, 2011; Raskauskas & Stoltz, 2004; Young et al., 2006). Research (Pronk & Zimmer-Gembeck, 2010) has also suggested that the motivation behind relational aggression behavior is often social dominance (i.e., power, social isolation of peers), and that relational aggression often has negative consequences for both the perpetrator and the victim (Mathieson & Crick, 2010; Young et al., 2006). Other functions of relational aggression include gaining acceptance or objects of desire, as well as enacting psychological and emotional harm to another individual (Merrell et al., 2006). According to Pronk and Zimmer-Gembeck (2010), there are five main types of behaviors considered as relational aggression. These behaviors are (1) unpredictable and inconsistent friendships, (2) rumors and gossip, (3) exclusion and ditching/cutting of friendships, (4) social intimidation, and (5) notes and cyber or technological aggression.

Scholarship (Mathieson & Crick, 2010; Young et al., 2010) has divided relational aggression into two primary types: *reactive* and *instrumental* (also referred to as *proactive*).

Reactive relational aggression typically results from a perceived threat or provocation from another individual (Young et al., 2010). The act is justified in the aggressor's mind due to feelings of anger or being wronged. Instrumental relational aggression is goal-directed in order to gain some form of personal gratification (Young et al., 2010). This form of relational aggression can include indirect and direct forms of relational aggression such as excluding individuals or threatening comments.

Students who participate in relational aggression are often very skilled at keeping their behaviors hidden (Young et al., 2010). Even if the behavior is reported, adults tend to minimize the behavior and fail to see it as a form of aggression (Young et al., 2010). According to Boxer et al. (2006) and Pokhrel et al. (2010), peers are a critical component of personal and academic achievement during development. Relational aggression used to be considered part of development; however, research indicated this form of aggression creates just as much and at times more damage than physical aggression (Leadbetter, 2010; Young et al., 2006; Young et al., 2010). Further, Pokhrel et al. (2010) suggested that there are some social groups that are at a higher risk of performing relational aggression. Often, these groups are popular "elite" groups. These popular students often become more adept at relational aggression over time and, perhaps consequently, use relational aggression more frequently to maintain their social status and the exclusion of outsiders (Pokhrel et al). Faris and Felmlee (2014) found students seen as bullies were most frequently attacking students who were seen as deemed strong and in competition for high social status. These findings were supported by Swearer et al. (2012) in terms of popularity, acceptance, and peer group status as a function of bullying behavior, particularly relational aggression.

Consequences of relational aggression span more than just for the victim. The aggressor can experience internalizing problems as well as externalizing issues (Young et al., 2010). In addition, they may experience high peer rejection and psychosocial maladjustment (Radliff & Joseph, 2011). Victims of relational aggression often feel rejected by their peers, social anxiety, low self-esteem and low self-worth (Young et al., 2010), and these effects can spill over into long-term psychological, social, and academic consequences (Radliff & Joseph, 2011). Some students who are frequently victimized may even turn into the bully themselves, as *they* begin acting out behaviors such as physical fights as a way to defend themselves (Green et al., 2013). In terms of impact on the victim, research has indicated six primary ways in which the victim might suffer. These include (1) social isolation, (2) peer difficulties, (3) loneliness, (4) depression, (5) suicidal ideation, and (6) retaliation (Faris & Felmlee, 2014; Swearer et al., 2012). The perpetrator also suffers, however. Research indicates that perpetrators may have and increased (1) tendency toward jealousy or anger, (2) likelihood of getting into fights, (3) an inclination toward abusive romantic partners, and (4) difficulty with internalizing behaviors (Cappella & Weinstein, 2006). Behavior policies in schools should address relational aggression definition and recommendation for prevention and intervention (Young et al., 2010).

### **Group Differences**

Research has indicated that, though relational aggression can occur in virtually all ages and among virtually all groups, there are some groups that are at higher risk than others for perpetrating relational aggression and being a victim of relational aggression (Faris & Felmlee, 2014; Mathieson & Crick, 2010; Radliff & Joseph, 2011; Werner & Crick, 2004; Werner & Hill, 2010). Additionally, there are some groups whose members suffer more greatly from relational aggressive behaviors. The following section will examine groups regarding the two key areas of

differentiation as established in the literature. These areas include gender differences as well as changes among groups as they age and develop from preschool to elementary school to middle school and to high school.

### **Gender Differences**

Werner and Crick (2004) examined 442 boys and 537 girls between 2nd and 4th grade. They found that children who experienced higher levels of rejection or children that had friends who engaged in relational aggression were more likely to engage in relational aggression themselves. Further, both genders have long-lasting effects related to relational aggression (Pronk & Zimmer-Gembeck, 2010). However, studies showing gender differences are found in the literature, and gender typically played a role in determining behaviors (Kistner et al., 2010; Werner & Crick).

Boys have been shown in most cases to perform more physically aggressive behaviors, while girls tended toward relational aggression behaviors (Crick & Grotpeter, 1995; Cullerton-Sen & Crick, 2005; Merrell et al., 2006). This is especially so in younger ages (Kistner et al., 2010). Girls' performance of relational aggression is more socially acceptable (Merrell et al., 2006), and it is also more observed and reported than when relational aggression is performed by their male counterparts (Leadbetter, 2010). Girls also *feel more hurt* than their male counterparts when close friends perform relational aggression against them (Leadbetter, 2010; Remillard & Lamb, 2005). Boys tend to move on quickly from relational aggression behaviors performed against them (Kistner et al., 2010).

Other gender differences relate to the types of relational aggression performed. Girls, more so than boys, tend toward verbal assaults, being mean behind the backs of friends, and by holding grudges (Murray-Close et al., 2006; Pronk & Zimmer-Gembeck, 2010). Pronk and

Zimmer-Gembeck (2010) found that girls tend to have a higher level of emotional involvement in their relationships, therefore their engagement in relational aggression is more prominent in school than boys' involvement. They also found boys' responses to relationally aggressive acts was less volatile and noticeable.

Werner and Crick (2004) found that peer relationships had a bigger impact on how girls developed relationally aggressive behaviors, whereas physical aggression was equally associated with maladaptive peer experiences for both genders. Boys tended to seek out friends (peer acceptance) with relational and physical aggression behaviors similar to their own (Werner & Crick). In general, the more boys believe their aggressive behaviors are acceptable, the more likely they are to engage in those aggressive behaviors (Lim & Ang, 2009).

However, there are differing views related to gender difference and relational aggression in school-aged children. Lansford et al. (2012), completed a cross-sectional study in nine countries including the US, that focused on gender differences. They determined relational aggression did not vary by gender. Some have speculated the reason for the gender role in relational aggression and the female population is due to cultural prominence. Archer (2004) noted that studies looking at relational aggression typically obtained data from observation, teacher ratings, and peer assessments which focus on female indirect aggression as opposed to males. Card, Stucky, Sawalani, and Little (2008) as well as Orpinas, McNicholas, and Nahapetyan (2014) agreed that due partly to this hyper-focus on the female population, gender and aggression tend to show trivial differences.

### **School Level Differences**

**Preschool.** Preschool teachers have often identified relational forms of aggression in their students as young as three years old (Goryl et al., 2013; Walker, 2010; Young et al., 2010).

Bowie (2007) determined many girls from preschool through adolescence tend to deal with conflict by using relational aggression and viewed it as a normal process for females. In addition, there appears to be a significant positive correlation in language and relational aggression; therefore, it would seem girls engage in the behavior at an earlier age (Bonica, Arnold, Fisher, & Zeljo, 2003). Fanger et al. (2012) observed relationally aggressive behavior on the playground at a preschool with 21 girls and 21 boys. They noted the most common form of aggression used among peers was exclusion and ignoring behaviors. Due to the sophisticated nature of relational aggression, these behaviors were more easily observed in younger students (Goryl et al., 2013; Walker, 2010; Young et al., 2010). Most preschool teachers are aware relationally aggressive behaviors are occurring among their young students, however, they are unsure of how to intervene or if their organization even has a policy that addresses these type of behaviors (Goryl et al., 2013).

**Elementary school.** One of the trends in relational aggression research is the focus on prevention and intervention programs on the mid-late elementary population (Leadbetter, 2010; Low, Frey, & Brockman, 2010; Mathieson & Crick, 2010; Menard & Grotper, 2011; Werner & Hill, 2010). During this developmental time period, students are engaging in relationally aggressive behaviors, but they typically they have not established a pattern for this behavior (Cappella & Weinstein, 2006). In addition, during this developmental period, students are becoming more reliant on peers to aid in identification and seeking approval (Bowie, 2007; Faris & Felmlee, 2014; Werner & Hill, 2010). Students who seek out peers who exhibit relationally aggressive behaviors tend to increase in this behavior as they age (Menard & Grotper, 2011; Werner & Hill, 2010). In addition, when students believe their relationally aggressive behaviors are supported by their social group or they experience high levels of rejection, they tend to

increase their relational aggression over time (Werner & Crick, 2004; Werner & Hill, 2010). Choi et al. (2011) expanded on this idea by dividing students into three cluster groups, including cooperative, competitive, and individualistic. They found students in the competitive group were perceived as engaging in all forms of aggression with some pro-social behaviors and considered dominant by teachers, whereas, individualistic students were believed to be loners who engaged in relationally aggressive behaviors for personal gratification or goals. Interestingly, there were no significant reports of aggressive behaviors among the cooperative group.

In addition, Yoon and Kerber (2003) found that teachers often set the tone of the classroom with how they respond to relational aggression among elementary students. When they take a passive approach to dealing with the behavior, students see the behavior as tolerated by adults and acceptable. Finally, Werner and Hill (2010) determined the transition to middle school was marked by increased approval of relational aggression, and individual norms predicted future relational aggression.

**Middle school.** There are several reasons why late-elementary and early middle school populations are at risk of relational aggression (Banny, Heilbron, Ames, & Prinstein, 2011; Pronk & Zimmer-Gembeck, 2010). Research has indicated that there is often an increase in relationally aggressive behaviors as students transition from elementary school into middle school (Banny et al; Letrende & Smith, 2011). However, according to Leadbetter (2010), this age group is also possibly more open to benefitting from interventions. This is especially so because, at this age, students begin to see a high degree of social skills, particularly their social information processing, empathy and perspective-taking, friendship, and leadership (Leadbetter). With the heightened social skills, of course, comes the issue of teachers being unable to detect relational aggression among a series of complex social interactions (Elsaesser et al., 2013;

Leadbetter, 2010). These students have a greater ability to manipulate others and negotiate their social status (Pronk & Zimmer-Gembeck, 2010).

As students progress through the middle school years, the need for peer approval becomes more dominant (Banny et al., 2011). Consequently, peer rejection also becomes an important component of the social dynamic (Leadbetter, 2010; Pronk & Zimmer-Gembeck, 2010). Such rejection has the potential to lead to internalizing behaviors such as loneliness, depression, suicidal ideation, and planning retaliatory actions (Leadbetter, 2010). In part due to the varying social abilities of students as well as the drastic increase in peer rejection at this age, middle school students continue to require proactive assistance from adults to cope with their high desire for peer acceptance (Leadbetter, 2010). Also necessitating guidance, students at this age are highly emotional in their reactions to social rejection (Banny et al., 2011).

**High school.** Research is limited on high school students' participation in relational aggression (Faris & Felmlee, 2014; Stauffer et al., 2012). That is not to say that the behaviors do not occur. Rather, students are, at this stage, quite skilled at relationally aggressive behaviors and have developed strong identities with specific peer groups (Pokhrel et al., 2010). Craig, Pepler, and Atlas (2000) suggested that the difficulty comes because of structural factors. Junior high and high school typically have students moving around classrooms, going from math with teacher A, to history with teacher B, to art with teacher C. This continual movement throughout the day may make it more difficult for high school teachers to detect relational aggression than their counterparts in the lower grade levels (Craig et al., 2000). Further, in many high schools, it is not uncommon for students to have "free" periods of very little (if any) direct supervision. These factors lead to less reporting of relational aggression by teachers, and the complex social and academic structures make high schools difficult settings for scholars to study (Page & Smith,

2012). In addition, James et al. (2011) emphasize that relational aggression tends to continue and often times increase as an adolescent moves into adulthood.

In summary, this section examined differences in relational aggression based on gender as well as age/development. This applies directly to the current study in that it reflects the importance of addressing both male and female involvement in relationally aggressive behaviors. In addition, according to the literature, students tend to become more socially sophisticated, value peer relationships, and develop negative patterns associated with relational aggression around late elementary through middle school. This emphasizes the importance of targeting attitudes, beliefs, and confidence of teachers in identifying and intervening on relational aggression among students.

#### **School System Factors Relevant in Relational Aggression**

School environments tend to be an ideal setting to engage in relational aggression due to the necessity of having a social context to support and maintain the behavior (Young et al., 2010). Schools play a key role in not only identifying students participating in bullying behavior, whether as the victim or the aggressor, but they are also essential to preventing and intervening with aggressive behaviors. Walker (2010) pointed out that after a Supreme Court decision and threats of more lawsuits, schools began targeting bullying behavior among students with system-wide policies, guidelines, and prevention/intervention services. In a national survey conducted by the National Education Association (2011), 98 percent of the respondents, all school employees, expressed their commitment to intervening when bullying happens at their school as part of their job requirement. However, in the same survey, it was determined that 46 percent of these respondents felt they had not received any specific training on their school district's anti-bullying policies and procedures. Goryl et al. (2013) also found in a survey of 188 early childhood

educators, 150 reported having “some sort of” anti-bullying policies with the majority indicating it was incorporated in other policies and procedures provided by the district. They also determined when there was a clear-cut policy that addresses specific bullying behaviors; the respondents expressed more confidence in identifying aggressive behaviors. Goryl et al. (2013) also noted the least common bullying behaviors addressed in the policies were power over weak, saying nasty things, and teasing and targeting others; all of which are common characteristics of relational aggression.

“Teachers, counselors, administrators, and parents who interact with youth on a daily basis struggle with making moment-to-moment decisions on whether they are seeing children play, tease, harass, fight, or bully one another” (Hazler, Miller, Carney, & Green, 2001, p. 135). When teachers and other school staff are presented with aggressive scenarios/vignettes, they almost always deem the physical, overt aggressive behaviors to be the most severe and harmful (Mishna et al., 2005; Page & Smith, 2012; Yoon & Kerber, 2003). Raskauskas and Stoltz (2004) found this to also be the case for students when they were presented with vignettes of aggressive behavior. The more covert the behavior, the more difficult it is to identify as bullying or aggressive. Hazler et al. (2001) also found that was the case even when the physical act didn’t meet the criteria for bullying behavior. Mishna et al. (2005) found that teachers understood bullying to be a behavior that had a power imbalance with most of the teachers noting the behavior as intentional, however, very few of the teachers surveyed viewed bullying as a repetitive process.

Prevention and intervention programs have become a focus in the research that addresses different forms of bullying behavior including relational aggression. Leff, Waasdorp, and Crick (2010) provide an overview of nine different prevention and intervention programs that

specifically target relational aggression in different levels of schooling. The majority of these programs are focused on early to mid-elementary school-aged, female students (Boxer et al., 2006; Capella & Weinstein, 2006; Leff et al., 2010) However, as Hoglund et al. (2012) found schools must continue to build social, coping, and problem-solving skills in students throughout their educational experience to help reduce relational aggressive behaviors. After implementing a three-year longitudinal evaluation of the WITS program (Hoglund et al., 2012), they determined by middle school the effects of the prevention program began to fade out. Yoon and Kerber (2003) cited findings from Song and Swearer (2002) stating teachers and other school staff model appropriate and inappropriate social interactions related to bullying behaviors. Because bullying behaviors, specifically relational aggression, can occur anywhere at any time during the day, it is essential for all school staff to be trained to identify bullying behaviors, understand the school's policies and procedures, and know how to enforce these guidelines (United States Department of Health and Human Services, 2014).

In summary, this section of review focused on school system factors associated with relational aggression. This pertains to the current study in that relational aggression typically occurs in a school setting and schools play a significant role in preventing and intervening in relational aggression among students. Also, schools not only educate students in academic skills but help enhance and develop social and emotional skills.

### **Teacher Factors Relevant for Relational Aggression**

There are several factors pertaining to teachers that are of importance. These areas include the following: recognition and knowledge of relational aggression; recognition of the negative impact of relational aggression; training on relational aggression strategies; personal

views on their role in stopping relational aggression; and, teacher confidence in their own abilities to recognize and intervene.

Few researchers have specifically investigated relational aggression and its associated classroom variables (Kuppens, Grietens, Onghena, Michiels, & Subramanian, 2008; Werner & Hill, 2010), even though to ensure positive outcomes for student relationships in classrooms, the role of the teacher is crucial both in terms of discouraging inappropriate actions and modeling appropriate behavior (Iimori, 2002; Kuppens et al., 2008). Stauffer et al. (2012) determined that teachers would not buy into any prevention and/or intervention strategy if they did not see the form of aggression as a problem behavior among students. Thus, having the support of teachers is essential for implementing an effective school-based intervention that combats any bullying behaviors (Larson, 2010; Stauffer et al., 2012).

### **Recognition and Knowledge of Relational Aggression**

Teachers are often the first individuals seeing and intervening in aggressive behaviors. They are expected, by most school systems, to be the first lines of defense against relationally aggressive behaviors in children and adolescents. “Teachers’ knowledge, attitudes, and behaviors appear to be particularly important for observing and limiting relational aggression in school settings” (Leadbetter, 2010, p. 590). Walker (2010) noted teachers may be unaware of the relationally aggressive behaviors due to perpetrators often being popular and socially powerful among their peers. In addition, relational aggression is maintained and promoted through peer support, social status, and reaching social goals (Choi et al., 2011; Faris & Felmlee, 2014; Pokhrel et al., 2010; Pronk & Zimmer-Gembeck, 2010; Radliff & Joseph, 2011; Walker, 2010).

Primary in any effort to address relational aggression is the teacher’s mere recognition of the situation (Cullerton-Sen & Crick, 2005). That is, even the greatest of prevention/intervention

strategies implemented by a school system will fall flat if the teachers are unaware of relational aggression. According to the literature, at least part of the lack of teacher reports of victimization is due to their lack of awareness of a problem (Craig, Henderson, & Murphy, 2000; Owens, Shute, & Slee, 2000).

### **Recognition of the Negative Impact of Relational Aggression**

Similar to the potential lack of awareness regarding the presence of relational aggression, the literature indicates that teachers are not always aware that the behaviors of relational aggression are a form of bullying (Faris & Felmlee, 2014; Leadbetter, 2010; Walker, 2010), or have negative consequences for the victim and the perpetrator. Yoon and Kerber (2003) found teachers were less likely to view social exclusion, a form of relational aggression, as a serious threat or bullying when compared to more overt forms of aggression. In addition, they were less sympathetic toward the victim, less likely to get involved, and often promoted more lenient strategies such as ignoring the behavior (Walker, 2010; Yoon & Kerber, 2003). Not seeing the behaviors as bullying or negative in nature has, of course, the same impact as simply not being aware that relational aggression occurs. With this pattern, the behaviors and consequences continue (Leadbetter, 2010; Young et al., 2006; Young et al., 2010).

### **Personal Views on Their Role in Stopping Relational Aggression**

Research has indicated teachers are aware the behavior occurs, but they do not know how or feel confident in intervening (i.e. - Espelage et al., 2014; Goryl et al, 2013; Kahn et al., 2012). Some research has found that teachers and other school staff view relational aggression as just a part of development (Faris and Felmlee, 2014; Page & Smith, 2012). Teachers who have greater knowledge and understanding of relational aggression may be better prepared to address victimization (Cullerton-Sen & Crick, 2005; Leadbetter, 2010; Verlaan & Termel, 2010).

Naturally, this is a problem not of recognition education/training, but of insufficient intervention training.

### **Training on Relational Aggression Strategies**

Often, teachers do not always have the necessary or extensive training needed to identify and intervene in bullying situations in the school environment (Bradshaw et al., 2011; Merrell et al., 2006; Mishna et al, 2005; Yoon et al., 2004). Mishna et al. (2005) suggested that most teachers reported not knowing how to deal with indirect bullying; they noted identifying and intervening was complicated and confusing. Further, teachers in the study indicated that they had no previous training on indirect bullying, but that they had a desire for such training. Many teachers often feel unprepared or unsure of identifying relational aggression among students and even more expressed their struggle with how to handle bullying situations despite acknowledging the long-lasting negative impact (Boxer et al., 2006; Stauffer et al., 2012). Bowllan (2011) evaluated the impact and effects of a longitudinal anti-bullying program, Olweus' Bullying Prevention Program (Olweus et al., 2002), in which teachers were provided training prior to implementation. Teachers reported more confidence and a greater knowledge in identifying, intervening, and reporting bullying incidents. Students also reported feeling more supported by the teachers and increasing communication (Bowllan, 2011).

### **Teacher Confidence in Their Own Abilities to Recognize and Intervene**

There are a number of factors identified in the research related to teachers that has an impact on how they perceive bullying behavior among their students and if they are prepared and confident in managing the behaviors. Goryl et al. (2013) examined teacher education level and their confidence in identifying bullying behavior. The researchers determined that the higher the education level, the more confident the teacher was in identifying relational aggression.

However, this was not the same for intervening. Years of experience teaching had no significant effect on teacher confidence in intervening in aggressive behavior (Goryl et al., 2013). “Results show that factors such as teacher education and teaching experience along with the inclusion of bullying policies within centers all relate to individual differences in teachers’ confidence in identifying and dealing with incidences of bullying” (Goryl et al., 2013, p. 38). There does appear to be a significant positive impact on proficiency test scores and teacher experience and education (Boxer et al., 2006). If teachers are more confident in their teaching abilities and this has an impact on student academic performance, could the same be true for teacher confidence and decreasing relationally aggressive behaviors among students? Mishna et al. (2005) found the majority of the 13 teachers that were surveyed, only four of which had over 10 years experience, reported no previous training on bullying but expressed a desire for training.

When Kahn et al. (2012) surveyed 97 pre-service undergraduate teachers, 77 were female and 20 were male, they responded with greater intervention when presented with overt aggressive behaviors, (i.e., reporting overt behaviors as a bigger issue of concern). For gender differences, there was no difference between type/consequences and gender; however, they did not feel the boys needed as much intervention. The literature focuses relational aggression research and interventions on the female population which could be adding to the belief that it is a female behavior and problem (Orpinas et al., 2014). This brings up the question, are female teachers expected to be more knowledgeable and confident in intervening in female aggressive behaviors? Teachers and students identified observable relational aggression, such as direct verbal aggression, and reported they would like relational aggression to decrease in the classroom setting (Page & Smith, 2012). However, both groups overlapped in their perception of relational aggression, describing it as a normal developmental process (Page & Smith, 2012).

Yoon and Kerber (2003) found teachers often exhibited a passive approach to relational aggression in their classrooms. Teachers were more likely to ignore the behaviors, such as social exclusion, which tended to send the message that these student behaviors were acceptable to engage in. Hazler et al. (2001) surveyed 251 professionals (teachers and counselors) with the majority of the participants being Caucasian and female. They found the more there was a physical threat or severe verbal abuse, the more likely the professional would intervene. With this in mind, teachers would likely benefit from training on the impact and consequences of relational aggression and how their reactions to the behavior impacts students. Howard et al. (2001, p. 184) determined “teachers will not intervene in bullying behaviors consistently until they feel adequately equipped to act.” One such program that has repeatedly been shown to positively impact teacher’s knowledge, skills, and sense of efficacy is Bully Busters (Newman et al., 2000; Orpinas et al., 2003; Van Overbenke Brooks, 2004). In addition to the Bully Busters (Newman et al., 2000) in-service program, the assessment tool, the Teacher Inventory of Skills and Knowledge (TISK, Newman et al., 2000), used to determine pre- and post-intervention levels also has proven to be effective in measuring the variables of interest in the present study (Howard et al., 2001; Newman-Carlson & Horne, 2004; Van Overbenke Brooks, 2004). Howard et al. (2001), Orpinas et al. (2003) as well as Newman-Carlson and Horne (2004) conducted examinations of the effectiveness of the program and determined teachers had an increase in knowledge related to bullying interventions as well as skills to implement interventions. They also reported an increase in self-efficacy in working with students. Lastly, all three studies showed a reduction in aggressive behaviors among students.

Factors associated with teachers have clear implication for this present study because teachers play a vital role in identifying and intervening in relational aggression among students.

Their beliefs, attitudes, and confidence in identifying relationally aggressive behaviors have an impact on how effective prevention and intervention programs are (Goryl et al., 2013; Kahn et al., 2012; Page & Smith, 2012; Yoon et al., 2004). In addition, their attitudes regarding relational aggression can potentially set the tone of the classroom in terms of the acceptability of the behaviors. Few researchers have focused on classroom variables (Kuppens et al., 2008; Werner & Hill, 2010). There also is a gap in the literature that addresses teacher individual factors including type of class taught, gender, and race.

However, the role of the teacher is essential for discouraging bad behavior and modeling good behavior (Kuppens et al., 2008; Page & Smith, 2012). Teachers are often the key implementers of prevention and intervention programs and it is essential to determine if they are receiving appropriate training and knowledge on what relational aggression is, who it affects, what the long-term effects are, and how to best intervene. Individual differences among teachers including years of experience, highest degree achieved, gender, race, and class/subject taught, may show to be important factors related to relational aggression recognition, knowledge, skill, and confidence.

### **Conclusion**

Bullying among youth is a prevalent and sometimes tragic issue that is occurring in schools. Often teachers and students perceive bullying behavior differently, and this difference of viewpoints results in many behaviors being left undetected or unreported (AERA, 2013; Bradshaw et al., 2011; Green et al., 2013). One form of bullying that continues to go undetected and unreported is relational aggression. Lastly, relational aggression is perceived by some as a normal developmental process (Page & Smith, 2012). This perception leads, of course, to a lack of intervention even if the behaviors are observed. “The danger in considering [relational

aggression] as normal is that teachers could develop passive or indifferent attitudes towards it” (Page & Smith, 2012, p. 326).

Relational aggression is a covert form of bullying that is most often used to manipulate social relationships, achieve personal goals, and/or obtain revenge from a perceived wrongdoing (Mathieson & Crick, 2010; Pronk & Zimmer-Gembeck, 2010; Radliff & Joseph, 2011; Raskauskas & Stoltz, 2004; Young et al., 2006). Common forms of relational aggression include exclusion, rumor spreading, name-calling, and gossiping. Relational aggression begins in children as young as three years old and becomes more sophisticated as the children mature (Fanger et al., 2012; Walker, 2010). The literature indicates relational aggression becomes most prevalent with patterns of use forming around late elementary and middle school years (Radliff & Joseph, 2011; Werner & Hill, 2010). In a survey of 114 female students, Reynolds and Repetti (2010) found that *every participant* was able to identify at least one incident of relational aggression in which they were a victim and one in which they were the aggressor. Victims of relational aggression typically identify the aggressor as a friend or a high status student (Raskauskas & Stoltz, 2004). Relational aggressors are sometimes perceived as popular and socially powerful by peers (Espelage & Swearer, 2004). These aggressors are motivated to use relational aggression by both their own social support network and by the benefits it provides in feeding their social status.

Research also indicates that, due to the manipulative and covert nature of relational aggression, any given behavior is easily denied by the aggressor or goes unreported by the victim (Crozier & Skliopidou, 2002; Mishna et al., 2005; Yoon et al., 2004). The effects of relational aggression are long-term and harmful to not only the victim but also the perpetrator (Mathieson & Crick, 2010; Radliff & Joseph, 2011). Adolescent victims are typically more depressed,

lonelier, more socially anxious, and have lower self-esteem (Choi et al., 2011; Haynie et al., 2001; Juvonen et al., 2003; Olweus, 1994). Both victims and aggressors experience internalizing and externalizing difficulties during and sometimes long after the incident.

Literature on gender differences regarding relational aggression engagement and effects provides mixed results. While some literature indicates that relational aggression is a female-only issue, particularly from early elementary through middle school (Leadbetter, 2010); other scholarship suggests that both male and female students engage in and are affected by relational aggression (Merrell et al., 2006). There is a tendency for researchers to focus solely on females when it comes to relational aggression (Remillard & Lamb, 2005). However, the literature consistently suggests that gender determines how relational aggression manifests.

Schools play a significant role in combating bullying behaviors, particularly relational aggression (Boxer et al., 2006; Farrell, Meyer, Kung, & Sullivan, 2001; Mishna et al., 2005; Walker, 2010; Yoon & Kerber, 2003). It is the responsibility of the school system to provide teachers and other school staff with information regarding their stance of bullying behavior and what the consequences are for students engaged in bullying behavior (Walker, 2010).

Though there is no federal law that regulates the need for bullying policies in schools, the majority of the states in the United States have created state laws to address bullying behavior; all states have either a law, policy or both (USDHHS, 2014). According to the 2011 NEA survey of educators and school personnel, it was clear that understanding and application of policies were not being met in 100 percent of the school systems. In addition, Goryl et al. (2013) found that often these policies and procedures did not address relationally aggressive acts.

In addition to school factors, there are several factors associated with teachers that emerge from past research. The literature suggests that teachers are at least partially aware of the

effects related to bullying, and perhaps less aware of those tied specifically to relational aggression (Espelage et al., 2014). The lack of reports from teachers is likely due, at least in part, to teachers' lack of recognition of the problem. (Craig et al., 2000; Cullerton-Sen & Crick, 2005; Owens et al., 2000). Further, scholarship indicates that teachers lack a thorough understanding of relational aggression definitions, types, and strategies for identifying the behaviors. It is important to note that teacher surveys have indicated a willingness to learn and a desire for training, however (Boxer et al., 2006; Mishna, 2005; Bradshaw et al., 2011). Despite the desire for training, though, there is a lack of such offerings. All of this, naturally, leads to lowered confidence among teachers in their ability to recognize relational aggression and successfully intervene (Goryl et al., 2013).

## CHAPTER 3

### METHODOLOGY

The purpose of this chapter is to describe the methodology used to examine teacher knowledge, frequency of use, and confidence regarding identification, prevention, and intervention of relational aggression. Further, this study examined the impact of a targeted teacher in-service that focused specifically on relational aggression training.

Thus, this study's primary focus was to better understand middle school teachers' self-reported perceptions of their (a) *knowledge* about identification, prevention, and intervention strategies for relational aggression; (b) *frequency* of using identification, prevention, and intervention strategies for relational aggression among their own students; and (c) *confidence* related to identifying, preventing, and intervening in relational aggression in their classroom. The survey was centered around an adapted version of Teacher Inventory of Skills and Knowledge (TISK, Newman et al., 2000), which focused on bullying in general and was adapted to focus specifically on relational aggression for the present dissertation study.

Next, this study performed a targeted in-service for middle school teachers that focused on increasing knowledge, frequency of use, and confidence related to identification, prevention, and intervention of relational aggression. Finally, this study reviewed the impact related to a targeted in-service training for middle school teachers on relational aggression with a three-month follow-up survey administered to the middle school teachers in both the treatment and control groups.

## **Research Questions**

This study was guided by the following research questions:

### **Research Question 1: Middle School Teachers' Reported Self-Perceptions**

What are middle school teachers' reported self-perceptions of the following:

- a) Knowledge about identification, prevention, and intervention strategies for relational aggression, as measured by the adapted TISK;
- b) Frequency in using identification, prevention, and intervention strategies for relational aggression among their own students as measured by the adapted TISK;  
Confidence in identifying, preventing, and intervening in relational aggression among their students, as measured by the Confidence Scale.

### **Research Question 2: Variables Related to Middle School Teachers' Reported Self-Perceptions**

Do teacher demographic variables (Highest degree achieved, years of experience teaching, type of class/subject taught, gender, and race/ethnicity) relate to middle school teachers' reported self-perceptions of the following:

- a) Knowledge about identification, prevention, and intervention strategies for relational aggression, as measured by the adapted TISK;
- b) Frequency in using identification, prevention, and intervention strategies for relational aggression among their own students, as measured by the adapted TISK;
- c) Confidence in identifying, preventing, and intervening in relational aggression among their students, as measured by the Confidence Scale.

### **Research Question 3: Differences Between Middle School Teachers' Reported Self-Perceptions Post In-Service.**

Is there a difference between middle school teachers who participate in a targeted in-service compared to teachers who do not participate in a targeted in-service *before the targeted in-service and three-months post in-service* regarding reported self-perceptions of the following:

- a) Knowledge about identification, prevention, and intervention strategies for relational aggression, as measured by the adapted TISK;
- b) Frequency in using identification, prevention, and intervention strategies for relational aggression among their own students, as measured by the adapted TISK;
- c) Confidence in identifying, preventing, and intervening in relational aggression among their students, as measured by the Confidence Scale.

#### **Sample**

The sample of this study was selected from all, full-time middle school teachers, in all academic areas including general education classrooms, special education classrooms, and other classroom settings (i.e. computer, physical education, art, etc.) that are employed fulltime by the six City and five County school districts located in the Southeast region of the United States.

The total return rate for the first survey collection point was 90 percent, with 97.5 percent returned in the treatment group and 79 percent returned in the control group. A total return rate for the three-month follow-up survey collection point was 87 percent, with 94.9 percent in the treatment group and 79 percent in the control group.

#### **Setting**

Middle schools were the setting of focus. The middle schools of interest were in the Southeast region of the United States and made up three school districts (two city school districts

and one county district), six city and five county middle schools, of two moderately sized cities. One of the cities has a population of 96,122 while the other has a population of 14,109 (Cubit, 2016). All eleven schools included grades 6-8, three of the county schools included preK-8 and two county schools included grades 5-8. One of the county schools (school 9) was removed from the study after the first survey due to an incomplete in-service training and scheduling conflict with the principal and teachers. Therefore, the number of schools used for the first data collection point was 11 and the three-month follow-up data collection point had 10 schools. Because it could participate only with the first data collection point, school #9 was removed. Descriptions of the schools [based on 2014-2015 data from department of education reports for the state in which the study was conducted and National Center for Education Statistics (2016)] are provided in Table 2.

School #	Type of District	Title 1	# Grade 6-8	# FTE	S/T Ratio	% Free Lch	% Rcd Lch	Student Race/Ethn	Treatment Group Consented Teachers	Control Group Consented Teachers
1	City*	No	590	37	15.95	38.5	4.7	74.6% White, non-Hispanic ; 19.5% Black, non-Hispanic	32	0
2	City	Yes	562	37	15.19	46.7	-	81.3% Black, non-Hispanic	0	17

								.12% White, non- Hispanic		
3	City*	Yes	442	27	16.37	51.6	-	96.2% Black, non- Hispanic  .02% White non- Hispanic	0	15
4	City	No	141	10	14.10	15.6	-	57.4% Black, non- Hispanic ;  36.2% White, non- Hispanic	7	2
5	City	Yes	144	11.31	12.73	51.6	-	86.1% Black, non- Hispanic  .03% White, non- Hispanic	0	6
6	City	Yes	444	28.69	15.48	68.5	-	99.3% Black, non- Hispanic  .01% White, non-	0	18

								Hispanic		
7	County*	Yes	221/310	14.33	21.63	55.2	11.3	93.0% White, non-Hispanic .06% Black, non-Hispanic	9	4
8	County*	Yes	210/635	38	16.71	62.6	7.3	95.0% White, non-Hispanic .03% Black, non-Hispanic	7	1
9	County**	Yes	179/556	33.20	16.75	61.4	7.0	95.1% White, non-Hispanic .002% Black, non-Hispanic	4	0
10	County*	Yes	271/833	47.00	17.72	62.4	6.0	90.0% White, non-Hispanic .05% Black, non-Hispanic	18	10
11	County*	Yes	184/601	43.00	14.19	58.1	5.8	89.0% White, non-Hispanic .02% Black,	6	2

								non-Hispanic		
<p>* denotes school for treatment group that received in-service training  **denotes treatment school removed from study</p> <p>Notes – #FTE = Full-time Equivalent; S/T Ratio = Student-Teacher Ratio; %Free Lnch = Percentage of students receiving free lunch; %Rdcd Lunch = Percentage of students receiving lunch at a reduced cost</p>										

In terms of school size, two of the middle schools were considered small (under 200 students total), three of the middle schools are considered medium in size (200-500 students), while the remaining six middle schools are considered large in size (over 500 students enrolled). The most recent data (2013-2014) regarding grade range and enrollment had not updated county School 10 as it was previously grades preK-8, but at the time for the data collection of this study, the school consisted of grades 5-8. As noted in Table 1, all of the schools were Title I schools except for two of the City Schools. Title I, under the federal Elementary and Secondary Education Act, provides financial assistance to local educational agencies and schools with high numbers/percentages of students from low-income families to help the students meet the state academic standards (U.S. Dept. of Education, 2016).

All of the above schools (see Table 2) except for County School 9 participated in both survey data collection points. After survey collection point 1, County School 9 was dropped from the study due to an incomplete training and scheduling conflict with the principal. The following schools participated in the study as the treatment group: City School 1, City School 3, and all County schools. The rest of the schools: City School 2, City School 4, City School 5, and City School 6 were included in the study as the control group. Due to a conflict in schedules, some of the teachers from the treatment group schools (all County schools) took part in the study as

control members as they did not receive the training component but did complete the surveys at the two data collection points.

### **Instrumentation**

The instruments used in this study consisted of 1) an adapted version of the TISK (Newman et al., 2000), 2), a Confidence Scale, and 3) demographic questionnaire. These components addressed the variables of interest: middle school teachers' knowledge in identification, prevention, and intervention; frequency of use in identification, prevention, and intervention; and confidence in identification, prevention, and intervention in relational aggression among students.

#### **TISK From Bully Busters**

The original Teacher Inventory of Skills and Knowledge (TISK) battery (see Appendix B), developed by Newman et al. (2000), included 64 items. The TISK was originally created to assess the effects of anti-bullying training in a pre-test, post-test design. The original TISK was developed in conjunction with the Bully Busters training program and the TISK connected to the eight modules within that anti-bullying program. The TISK asked participants to complete both a knowledge scale and a frequency of use scale for each of its items. Thus, the original TISK produced an overall *knowledge* score as well as an overall *use* score. In addition to these overall scores, the TISK's 64 items were broken into six categories of scoring. These included 1) Prevention of Bullying and Vicimization, 2) Interventions for Aggressors, 3) Interventions for Vicitms, 4) Interventions for Aggressors and Victims, 5) Resources for Bullying and Victimization, and 6) Awareness of Bullying and Victimization. Each of these six categories received both a *knowledge* and *use* score (Newman et al., 2000).

**Reliability and validity.** Howard, Horne, and Jolliff (2001) relied upon the Bully Buster program and the TISK battery of questions. They focused their work on increasing self-efficacy among middle school teachers in an urban setting in the southeastern region of the United States. They found significant increases in teacher knowledge and skills. Newman-Carlson and Horne (2004) also utilized the Bully Busters program and TISK instrument in their bully reduction study of middle school teachers in southeastern United States schools.

As mentioned earlier, the *original* TISK, consisting of 64 items, was divided into a six categories: prevention of bullying and victimization, interventions for bullies, interventions for victims, interventions for bullies and victims, resources for bullying and victimization, and awareness of bullying and victimization. Further, each of the 64 items included a score for both Knowledge and Skills/Use. Newman-Carlson and Horne's (2004) internal consistency assessment had Cronbach's alpha coefficients ranging from .79 to .92 for the six dimensions on the Knowledge Subscale and coefficients ranging from .71 to .88 for those same dimensions on the Skills/Use Subscale. Van Overbeke (2004) used the TISK and Bully Busting system as part of a training program aimed at elementary school teachers in the southeastern United States, showing that the program was effective in increasing knowledge and use of prevention and intervention skills. Orpinas, Horne and Staniszewski (2003) also examined the Bully Busters and TISK with elementary school teachers. Results showed a 40 percent decrease in aggressive behaviors, as reported by the students. They also found a 19 percent decrease in victimization experiences.

#### **Adapted TISK for Dissertation Study**

For the purposes of the dissertation study, an adapted version was developed by the present researcher (see Appendix A) to assess middle school teachers' knowledge, frequency of

use, and confidence in identification, prevention, and intervention of *relational aggression*.

Adaptation was necessary given that the original TISK focused on bullying in general whereas the present study examines relational aggression, a specific form of bullying behavior.

Permission from the TISK copyright holder is found in Appendix C.

**Adaptation procedures.** For most items on the original TISK, initial adaptation merely required re-wording the statements from “bullying” to “relational aggression” or “bully” to “aggressor.” For example, one of the original statements on the TISK read, “Use teacher support team as a resource for consultation and support for bullying problems.” The adapted TISK was re-worded to read, “Use teacher support team as a resource for consultation and support for relational aggression problems.” For other items, there was no change required as the original item was directly related to relational aggression. For example, “Reinforce the behavior, not the child.” Items such as these are evidence-based prevention and intervention recommendations for aggressive behaviors (Newman et al., 2000). Items on the adapted TISK have been selected to be consistent with information presented on the teacher in-service training that focuses on relational aggression.

The next adjustments made to the adapted TISK instrument included adding three items that specifically addressed knowledge and frequency of use in identification of relational aggression (for example, items 36, 37, and 38). Last, the adapted TISK was then broken into two clear scoring categories: knowledge and frequency of use (see Appendix A). This separation of scoring categories effectively doubled the number of items, given that, prior to the separation, the participant would have simply answered *twice* for each statement. Therefore, the adapted TISK ultimately consisted of 76 items that needed to be completed by the teacher, with 38 items related to knowledge and 38 items related to frequency of use. Wording within these items was

adjusted to clearly reflect if the statement was targeting “knowledge” or “frequency of use.” An example is item number 1, which read, “Establish a zero-tolerance policy: “No bullying behaviors of ANY form” which was appropriate for frequency of use, however, it had been adapted for knowledge to read, “The zero-tolerance policy use and requirements.” Once all the adjustments and additions were completed, the adapted TISK consisted of 76 total items that assess teachers’ knowledge and frequency of use in identification, prevention, and intervention related to relational aggression.

**Adapted TISK measures.** *Knowledge* was conceptually defined as a middle school teachers’ ability to broadly define relational aggression and identify specific behaviors of relational aggression as well as identify prevention and intervention strategies and techniques specific to relational aggression behaviors. Knowledge is often based on facts, objectives and can be critically examined (Pajares, 1992). Knowledge was assessed on an adapted version of the TISK survey by asking the participants to indicate their level of familiarity with identification, prevention, and intervention strategies related to relational aggression (see Appendix A).

*Frequency of use*, conceptually defined as middle school teachers’ identification of relational aggressive acts and active use of strategies to prevent relational aggression among their students as well as implement intervention techniques when relational aggression occurs. Frequency of use was assessed in the adapted TISK survey by asking participants how frequently they utilize identification, prevention, and intervention strategies and techniques related to relational aggression (see Appendix A).

Both knowledge and frequency of use were assessed through the eight total categories of the adapted TISK: Knowledge-Identification, Frequency of use- Identification, Knowledge-Prevention, Frequency of use-Prevention, Knowledge-Intervention, Frequency of use-

Intervention, Knowledge-Total and Frequency of use-Total. The 3-point Knowledge Subscale ranges from 1-Unfamiliar to 2-Somewhat Familiar to 3-Very Familiar (Newman et al. 2000). The 3-point Frequency of Use Subscale includes 1-Never Use, 2-Sometimes Use, 3-Always Use (Newman-Carlson & Horne, 2004).

Identification had 12 survey items while Prevention and Intervention each consisted of 13 items. The Total knowledge and Total frequency of use score was obtained from all 38 items, respectively. Categorization of all items for the adapted TISK was reflect content from the teacher in-service, developed through relevant relational aggression scholarship. When appropriate, each survey item's category (Identification, Prevention, Intervention) was designated by this researcher in conjunction with the original TISK's design (Newman et al., 2000).

Thus, there were a total of 8 scores derived from the adapted TISK, based on sums of item scores: 1) Knowledge-Identification, 2) Knowledge-Prevention, 3) Knowledge-Intervention, 4) Knowledge-Total, 5) Frequency of Use-Identification, 6) Frequency of Use-Prevention, 7) Frequency of Use-Intervention, 8) Frequency of Use-Total.

***Reliability and validity of adapted TISK.*** The TISK, developed by Newman et al. (2000), was adapted for the purposes of this study to focus on relational aggression; therefore, no previous data existed regarding its reliability and validity. Because the TISK was modified, it was necessary to assess its content validity in order to determine whether the items adequately represent the constructs of interest (Crocker & Algina, 1986, p.218). Therefore an expert panel of school psychology, research professionals, relational aggression experts, and a measurement professional was assembled to assist in modifying this instrument.

Reliability was assessed using Cronbach's Alpha once dissertation data had been obtained for the first administration of the survey. For Knowledge-Total, Cronbach's alpha was .951 with N = 133. For Knowledge-Identification, Cronbach's alpha was .917 with N=135. For Knowledge-Prevention, Cronbach's alpha was .858 with N=1363. For Knowledge-Intervention, Cronbach's alpha was .869 with N=137. For Frequency of Use-Total, Cronbach's alpha was .936 with N = 131. For Frequency of Use-Identification, Cronbach's alpha was .880 with N=136. For Frequency of Use-Prevention, Cronbach's alpha was .805 with N=138. For Frequency of Use-Intervention, Cronbach's alpha was .844 with N=135.

### **Confidence Measure**

*Confidence*, conceptually understood as a middle school teacher's own positive belief in his or her own ability, was assessed using Goryl et al's (2013) five-point Likert scale survey questions (see Appendix A). The five-point Likert scale consisted of: 1-not at all confident; 2-somewhat confident; 3-not sure; 4-confident; and 5-very confident. The only confidence questions initially present were ones that addressed identification and intervention so an additional item was added by the present researcher to address confidence in preventing relational aggression. These three survey items were adapted to address relational aggression specifically rather than their initial use to assess confidence associated with bullying. The questions became: 1) "How confident do you feel in identifying a relational aggression incident?," 2) "If you witnessed a relational aggression act, how confident would you be in intervening?," and 3) How confident do you feel in implementing prevention strategies related to relational aggression? Each of these items were intended to serve as the score for each confidence variable (confidence-identification, confidence-prevention, and confidence-intervention) as well as combined to form an overall confidence score (total confidence).

However, it was later decided that due to validity concerns the three confidence variables would only count towards total confidence and not stand alone measures. Therefore, the Confidence Scale consisted only have total confidence as the dependent variable.

### **Reliability and validity of adapted Confidence Scale**

The Confidence Scale used by Goryl et al. (2013) was adapted for the purposes of this study to focus on relational aggression; therefore, no previous data existed regarding its reliability and validity. Also, there is no previous reliability and validity information regarding the Confidence Scale developed by Goryl et al (2013). Because the Confidence Scale was modified, it was necessary to assess its content validity in order to determine whether the items adequately represent the constructs of interest (Crocker & Algina, 1986, p.218). Therefore an expert panel of school psychology, research professionals, relational aggression experts, and a measurement professional was assembled to assist in modifying this adapted Confidence Scale prior to implementation for the purposes of the present study. It was decided that due to validity concerns the three confidence variables (identification, prevention, and intervention) would only count towards total confidence and not stand alone measures.

Reliability was assessed using Cronbach's Alpha after data was obtained. Cronbach's alpha for Confidence-Total was .883 with N = 135.

### **Summary of Dependent Variables from Adapted TISK and Confidence Scale**

The nine dependent variables from the adapted TISK and Confidence Scale are: Knowledge-Identification, Knowledge-Prevention, Knowledge-Intervention, Knowledge-Total, Frequency of Use-Identification, Frequency of Use-Prevention, Frequency of Use-Intervention, and Frequency of Use-Total, and Total Confidence. All the Knowledge variables were assessed with 38 items and all the Frequency of Use variables were assessed with 38 items, a total of 76

items on the adapted TISK. All the Confidence variables were assessed with the 3 questions on the Confidence Scale with each question addressing one of the Confidence variables (question 1-Identification, question 2-Prevention, and question 3-Intervention), with a possible range of 1-5.

For each participant, an average score was obtained for both Knowledge and Frequency of Use scores in identification, prevention, intervention, and total was the average of all items scored, with a possible range of 1-3. Scores for Total Confidence was the average of all three items scored: Confidence-Identification, Confidence-Prevention, Confidence-Intervention were the individual items scores in these categories. Table 1 shows details of the Adapted TISK and Confidence Scale.

Table 1			
<i>Number of Items on the Adapted TISK and Confidence Scale for Knowledge, Frequency of Use, and Confidence in Identification, Prevention, Intervention, and Total.</i>			
	Knowledge	Frequency of Use	Confidence
Identification	12	12	1
Intervention	13	13	1
Prevention	13	13	1
Total	38	38	3

### **Demographic Questionnaire**

The final component of the survey was demographic items and other background factors that could potentially influence teacher confidence including gender, race, education level (highest degree achieved), teaching experience (years taught), and type of class or subject taught (see Appendix D). These variables were the most commonly used demographics in previous

research (Mathieson & Crick, 2010; Pronk & Zimmer-Gembeck, 2010; Radliff & Joseph, 2011; Raskauskas & Stoltz, 2004; Young et al., 2006).

### **In-Service Treatment**

The treatment used in the study follows a similar format to the training used by Newman et al.'s (2000) book, *Bully Busters: A Teacher's Manual for Helping Bullies, Victims, and Bystanders*. Though the goal of Bully Busters was to focus on bullying behaviors, the goal of the *current* in-service training focused on relational aggression, a specific type of bullying. The purpose of the in-service was to improve teachers' knowledge, frequency of use, and confidence in identification, prevention, and intervention regarding relational aggression.

The format of the in-service training structurally followed that of the Bully Busters program (module-based instruction); however, the modules of the current in-service were placed into three sections (approximately 20 minutes per section, 60 minutes total in-service) that was presented to the middle school teachers in a *one-hour* period (see Appendix E). A detailed description of each section (Identification, Prevention, and Intervention) is given below. The teacher in-service was developed with the adapted TISK for consistency of knowledge and frequency of use related to strategies and techniques for relational aggression behaviors.

#### **Section 1: Relational Aggression Identification**

This section of the training session focused first on comparing bullying in general versus relational aggression specifically. This section then presented the two types of relational aggression and various behaviors associated with relational aggression. Next, section 1 covered gender differences, group differences, common characteristics of aggressors and victims, and statistics regarding immediate and long-term effects. Last, section 1 discussed confusion around the role teachers play in relational aggression.

## **Section 2: Prevention.**

This section of the training session began by addressing the key issues that hinder the relational aggression prevention efforts in the classroom. These issues included a lack of administrative support, common misconceptions regarding “normal development”, cost effectiveness, “parent problems”, and a simple lack of recognition and awareness. Next, this section addressed the key characteristics in establishing effective prevention strategies. These characteristics fall into three categories: School, Teacher, and Parent Involvement. Lastly, section 2 introduced strategies for affecting change to the current classroom culture.

## **Section 3: Intervention**

Section 3 focused on intervening when relational aggression occurs. First, this section addressed general strategies for intervention, including creation of a positive environment, establishment of rules, building of confidence, self-examination, and empowering students against aggressors. Next section 3 focused on specific techniques for intervening, including positive reinforcement and punishment, the invitational approach, and the “Four Rs”. The final two elements of section 3 addressed assisting aggressors and assisting victims. Here, important skills and approaches were presented so that the teacher might be better equipped to deal with relational aggression.

## **Validity**

The teacher training is guided by the Bully Busters program, it has been developed for the purposes of this study to focus on relational aggression. Thus, no previous data exists regarding its validity. Also, there is no validity information regarding the Bully Busters program. As a result, it was necessary to assess its content validity in order to determine whether the content of the training adequately address and measure identification, prevention, and

intervention strategies consistent with the literature (Crocker & Algina, 1986, p.218). A pilot study was conducted to address length and validity of training. This pilot study included an assessment of the training program for clarity, wording, and applicability. It also included an assessment of the instructions and items within the survey.

## **Procedure**

### **Permissions for Pilot Study**

Approval was obtained from the University of Alabama Institutional Review Board (IRB) to conduct a small pilot study with middle school teachers (see Appendix F). A small elementary school (grades pre-k through 6<sup>th</sup> grade) in the County school district was utilized for the pilot study. Approval from the principal was obtained next. Two core 6<sup>th</sup> grade teachers and the physical education teacher consented to participate in the pilot study.

### **Pilot Study**

The pilot study was conducted on September 29, 2015, with three 6<sup>th</sup> grade teachers from a local County school which was made up of grades pre-K through 6<sup>th</sup> grade. The teachers completed the adapted TISK, Confidence Scales, Demographic questionnaire, and teacher in-service treatment.

**In-Service.** The teachers selected for the pilot study reviewed the in-service and participated in the training. This pilot study was conducted to assure content validity as well as for timing of the in-service presentation. After reviewing and completing the training, the teachers' feedback was requested and any suggested adjustments were considered for the dissertation study. Throughout the training, the teachers provided examples of situations in which relational aggression occurs within their school and classroom. The training was estimated to take 45-60 minutes and with two 5-minute interruptions, the training lasted 1 hour, 10 minutes. At the conclusion of the training, the teachers expressed their appreciation for the

training and reported they were happy to have the information moving forward with their 6<sup>th</sup> grade students. The teachers participating in the pilot study expressed a lack of understanding of the term relational aggression in the adapted TISK but had no additional concerns, questions, or issues related to the survey. For the in-service training, the teachers expressed no concerns or issues and reported the information was useful. For the expert review, the only suggestion made was the randomly reorder items on the survey at each data collection point. This suggestion was completed at data collection point two and three. In addition, two experts within the field of school psychology as well three research professionals reviewed content of the in-service. None of the professionals expressed any concerns or issues related to the in-service training content.

**Adapted TISK, Confidence Scale, and Demographic Questionnaire.** The teachers selected for the review and pilot study completed the instruments for content validity and reliability testing. After reviewing the instruments for clarity in instructions, wording of items, and overall applicability, the teachers' feedback was requested and any suggested adjustments were considered for the dissertation study. All three of the teachers expressed their lack of understanding of what the term, "relational aggression" was but since the study is focused on teachers knowledge of relational aggression, no changes were made (i.e. definition of relational aggression prior to in-service training). No additional issues, concerns, or recommendations were expressed by the three teachers regarding the instruments.

In addition, two experts within the field of school psychology as well as three research professionals reviewed content of the instrument. A recommendation of providing surveys that are reordered from survey point 1 to point 2 was taken into consideration and implemented.

## **Permissions for Dissertation Study**

Permission to use and adapt the Teacher Inventory of Skills and Knowledge as well as the Bully Buster program was acquired through email correspondence with the publisher, Research Press, of the manual (see Appendix C). Second, permissions were necessary for access to the study's participants. The University of Alabama IRB was provided a detailed description of the study, plans for all interactions with participants, detailed account of potential risks and benefits to participants, and plan for maintaining confidentiality of participants (see Appendix G).

Permission was obtained from school districts through phone calls and email correspondence from this researcher to the superintendent of each school district. Once a written consent from the superintendent had been obtained, the principals at each middle school within each school district was contacted through phone calls or email correspondence. They were provided detailed information regarding the study, its objectives, and requirements for participation from the teachers. A day and time was then established with the principal to meet with the teachers within the school.

The teachers were recruited by this researcher after permission had been obtained from the superintendent and each middle schools' principal. This researcher met with teachers in groups during their planning periods to discuss the study's objectives and requirements for participation as well as to review the informed consent. Teachers were then asked to participate by signing the informed consent and completing the first survey.

Once IRB approval was obtained, the second set of permissions were more complex as they included the recruitment of three school districts (two city and one county) and involved the following 3 steps: 1) Initial contact with and acquiring permission to contact the schools from

each school district's superintendent or other appropriate administrator, 2) contact with each school's principal to obtain permission to conduct the study at his or her school (including surveys, in-service program, contacting teachers via email, etc.), and 3) contact of the teachers with information regarding informed consent and the surveys. The data was collected *in person by the researcher*, at both the first and three-month follow-up data collection points, for both treatment and control groups. For first data collection point, this researcher distributed both the consent form and first survey to all teachers in the participating schools. All the consent forms were collected during the initial contact. The majority of the first surveys were collected immediately prior to the in-service training (treatment group) or one week after distribution (control group).

### **Assignment of Schools to Treatment and Control Groups**

To determine teacher training groups that participated in the targeted in-service, the schools were assigned based on convenience and response. The first seven schools, regardless of school district, that responded to email and phone call inquiries about participating in the study by this researcher, were assigned to the treatment group while the last four schools were assigned to the control group. All the County schools and two of the City schools were assigned to the treatment group whereas the last four City schools were assigned to the control group. It was completed in this manner as it was unclear as to how many schools would eventually participate in the study and this researcher wanted to ensure adequate treatment group size.

### **Presentation of Treatment In-service**

Scheduling of any particular school's in-service was done in coordination with the school's principal. The majority of the in-services were conducted either after school or during teacher planning periods. The rest of the in-services occurred during teacher professional

development day. All of the teachers who participated in the in-service training received continuing education units through their school district.

All the in-service trainings were conducted at each individual school, with a range of 6 to 32 teacher participants in each inservice. Often the school library was utilized due to media accessibility and room capacity. The teachers sat at tables that consisted of 4-6 chairs per table. For smaller groups (no larger than 8 teachers), the training was conducted in a teacher's classroom with the teachers sitting at student desks. This researcher facilitated every training in person and utilized a powerpoint to conduct the training. The in-service training was scripted for consistency of delivery of information and averaged one hour in duration (Appendix E). During each in-service, the teachers were asked if they were aware of the school or district policy regarding bullying behaviors. Only one of the schools (a City school) was able to discuss their school's policy and it did not explicitly identify relational aggression. The other treatment schools did not know of any districtwide or schoolwide policy that addressed bullying behaviors.

### **Data Collection**

Data was to be collected at three points. The one-week post-treatment survey ended up being dropped due to low return rate and insufficient demographic data.

First, a pre-test survey (prior to the in-service) was administered with the demographic questionnaire. The pre-test was administered to the treatment in person through a hardcopy format immediately (either on the day of the training or one week prior to the training) preceding the in-service training. For the control group, the pre-test and informed consent was distributed in person with the teachers during their planning period. For the treatment group, the in-service (treatment) was conducted immediately following the first survey; it was in a one-hour training session during a teacher planning period, after school, or professional development day.

The first survey was administered to schools from the end of September 2015 through January 2016 with the majority of the treatment group receiving their first surveys and in-service training in October 2015. The first school in the treatment group was administered on September 29, 2015 with the training occurring on October 7, 2015. The last school from the treatment group completed their first survey and training on January 4, 2016. Three of the control group (City) schools completed their first surveys in November 2015 with the final school in the control group having their first survey administered on January 11, 2016. As stated previously, this date was determined based on principal response to this researcher's inquiries to conduct the dissertation study at their school.

Two versions of the adapted TISK were developed with the survey items listed in random order to prevent order effects. All the teachers received the same version of the surveys at the same time. The first survey is the original version and was conducted at data point one. The three-month follow-up survey questions were randomly reordered from the original survey. All the participating teachers completed this survey, as planned, at the three-month post-treatment data collection point.

The treatment group received the informed consent and survey prior to in-service training. This researcher collected the completed surveys in person prior to implementing the in-service. The control group received these materials during their planning period during the school day and this researcher collected the informed consent during the initial meeting then the completed surveys one week after distribution.

The three-month follow-up survey was also administered in person, by this researcher or with a contact person (i.e. counselor), with both groups. The second data collection point was dropped due to low completion and return rate among the teachers as well as missing

demographic data from several schools. The schools who had completed their first surveys in September received their final surveys in January 2016. The schools who completed their first surveys in January, received their final surveys at the beginning of April 2016. The same procedure for distributing and collecting the materials for the first survey was utilized for the three-month follow-up. Both the treatment and control group completed the two surveys with the demographic questionnaire at each collection point. Once again, both groups received the survey through either a contact person at the school or by this researcher. In an effort to maintain return rate, the three-month follow-up survey was conducted and collected by this researcher during the teachers' planning period or picked up by this researcher from the contact person one week after distribution. When the surveys were left with a contact person at the school, a letter from this researcher was attached to the surveys with a pick-up date and time printed as a reminder to the contact person as well as the teachers (see Appendix H).

A total return rate for the first survey collection point was 90 percent with 97.5 percent returned in the treatment group and 79 percent returned in the control group.

A survey was administered immediately post-training (one-week post-training) to the treatment group and one week after the first survey was picked up from the control group schools. This data collection point was not utilized for the final data analysis due to low return rate (less than 50%) as well as multiple schools failing to complete demographic information.

Once all the first surveys were completed at data collection point one, the treatment group consisted of 81 participating teachers and the control group had 59 participating teachers.

For the majority of the schools, the three-month follow-up survey was administered and collected by this researcher on the same day. For two of the schools, a list of the consenting teachers was provided to a school contact person with the surveys and this researcher collected

the completed surveys one week after distribution from the school contact person. A total return rate for the three-month follow-up survey collection point was 87 percent (N=134) with 94.9 percent returned in the treatment group (n=75) and 79 percent returned in the control group (n=59).

### **Research Design**

The designs being utilized in the dissertation study were a survey design and a quasi-experimental design. A survey research method was the primary data collection method as it had participants providing background information and reporting on current attitudes and practices (Frankfort-Nachmias & Nachmias, 2008). This study also utilized a pre-test, post-test procedure to investigate differences between teachers who did and did not participate in the inservice training, with a three-month follow-up to assess the potential long-term effects of treatment. The quasi-experimental design with a control group was chosen for the proposed study as a way to best assess the effects of any potential treatment differences for each group over time (Frankfort-Nachmias & Nachmias, 2008).

### **Data Analysis**

The Statistical Package for the Social Sciences – Version 23.0 (SPSS 23.0) software program was employed to conduct the analyses for the proposed dissertation study (see Data Management Plan in Appendix I). Research question 1 and research question 2 were completed using all of the first surveys from all the participating teachers. Research question 3 was completed using the surveys from data collection point one and three from all the participating teachers who completed both survey points after they were identified into the treatment (n=79) or control (n=75) group.

**Research question 1:** What are middle school teachers' reported self-perceptions of the following:

- a) Knowledge about identification, prevention, and intervention strategies for relational aggression, as measured by the adapted TISK;
- b) Frequency in using identification, prevention, and intervention strategies for relational aggression among their own students, as measured by the adapted TISK;
- c) Confidence in identifying, preventing, and intervening in relational aggression among their students, as measured by the Confidence Scale.

The first broad purpose of the dissertation study was to assess teachers' knowledge in identification, prevention, and intervention; frequency of use in identification, prevention, and intervention; and confidence in identification, prevention, and intervention regarding relational aggression in their classrooms and school. The instrument included indices for each of these three variables (knowledge, frequency of use, confidence). Therefore, to achieve the first purpose of the dissertation study, descriptive statistics (measures of central tendency and dispersion) were employed based on the first survey results. To address this question, data was reported on each item (number and % of teachers selecting each response choice for an item) as well as each of the nine dependent variables from the first survey point:

- Knowledge-Total
- Knowledge-Identification
- Knowledge-Prevention
- Knowledge-Intervention
- Frequency of Use-Total
- Frequency of Use-Identification

- Frequency of Use-Prevention
- Frequency of Use-Intervention
- Total Confidence

**Research question 2:** Do teacher demographic variables (Highest degree achieved, years of experience teaching, type of class/subject taught, gender, and race/ethnicity) relate to middle school teachers' reported self-perceptions of the following:

- a) Knowledge about identification, prevention, and intervention strategies for relational aggression, as measured by the adapted TISK;
- b) Frequency in using identification, prevention, and intervention strategies for relational aggression among their own students, as measured by the adapted TISK;
- c) Confidence in identifying, preventing, and intervening in relational aggression among their students, as measured by the Confidence Scale.

The second purpose of the dissertation study was examine what background factors play a role in knowledge, frequency of use, and confidence in identification, prevention, and intervention regarding relational aggression in their classrooms and school setting. These factors were examined through a one-way ANOVA for each of the dependent variables to determine which, if any, of the background items (demographics, teacher experience, etc) was related to knowledge, skills, and confidence about relational aggression (see Appendix J). The data to address this question was collected in the first survey point.

The specific dependent variables considered were knowledge, frequency of use, and confidence regarding identification, prevention, and intervention strategies for relational aggression. With two of the primary variables (knowledge and frequency of use,) having four sub-scores (identification, prevention, intervention, total score) and total confidence there were

nine dependent variables for this research question, each receiving its own analysis. To control for Type I error, alpha was divided by the number of tests ran ( $\alpha = .05/9 = \alpha = .006$ ).

**Power.** For research question 2, the calculation of a power analysis for ANOVA (Green, 1991), using a medium effect size ( $\alpha = .05$ ,  $1 - \beta = .80$ ), yields a minimum sample size of 76 participants per group (152), treatment and control.

**Research question 3:** Is there a difference between middle school teachers who participate in a targeted in-service compared to teachers who do not participate in a targeted in-service *before the targeted in-service and three-months post-in-service* regarding reported self-perceptions for the following variables:

- a) Knowledge about identification, prevention, and intervention strategies for relational aggression, as measured by the adapted TISK;
- b) Frequency in using identification, prevention, and intervention strategies for relational aggression among their own students, as measured by the adapted TISK;
- c) Confidence in identifying, preventing, and intervening in relational aggression among their students, as measured by the Confidence Scale.

The third purpose of the dissertation study was to examine the impact of the targeted in-service on teachers' knowledge, frequency of use, and confidence at three-months post-training, compared to the initial survey prior to training. To examine this, a dependent samples t-test was conducted to assess changes from pre-post training regarding the nine dependent variables of interest (see Appendix K), with each dependent variable receiving a unique analysis for both the treatment and the control groups. The primary independent variable will be the participation (treatment) or non-participation (control) in the in-service. To control for Type I error, alpha was divided by the number of tests ran ( $\alpha = .05/9 = .006$ ).

**Power.** For research question 3, the calculation (Maxwell & Delaney, 2004) of power analysis using medium effect size ( $d=.50$ ,  $pwr= 1-\beta=.80$ ,  $\alpha=.05$ ) yields a minimum sample size of 79 per group (2 groups, 158 total).

### **Assumptions**

There were several critical assumptions regarding this study, without which the study would become irrelevant. First, it was assumed that, for the most part, the body of teachers in the study remains consistent. If there would be a great turnover of employees in these schools, any impact of the treatment would become irrelevant. There was not a high turnover rate among the teachers throughout the duration of the data collection process. One school was dismissed from the study after the first survey collection point due to scheduling conflict. One of the teachers from one County school was transferred to another school within the district that was not participating in the study. Three teachers from three of the City schools in the control group were no longer employed within the City school district.

Second, it must be assumed that the teachers in the treatment group will be able to fully attend the in-service training. If they were forced to come late or leave early, any effects found would have been weakened. All of the teachers participating in the in-service training physically attended the full session.

Third, it was assumed that teachers in the treatment and control groups *did not* receive additional training in bullying or relational aggression. Any such training could have potentially skewed the results one way or another. It was assumed that the teachers were able to freely apply any tactics and strategies that they learned in the in-service to their own classroom. If they were restricted from applying such skills, it would have likely negatively impacted their attention during the in-service as well as rendered the measures regarding use of tactics pointless. Less

than 10% of the teachers from both the treatment and control groups reported having participated in a training that was focused on crisis management or bullying issues. However, none of the teachers reported previous training on relational aggression. In addition, only 1% of the teachers noted they had had courses in college or graduate school that focused on *bullying* prevention and intervention.

Last, it was assumed that the participants of the study answered questions honestly regarding their relational aggression knowledge, skills, and confidence. To aid in this, the highest level of confidentiality was maintained, and the confidentiality plan was fully explained to the participants. The plan included limiting personally identifying information, use of participant numbers rather than names, careful management and control over access to the data itself, and an appropriate plan for disposal of materials.

### **Teacher Demographics For The First Survey Data Collection Point**

Demographic statistics for all the teachers who completed the first survey, prior to teacher inservice, can be found in Table 3. Table 3 provides the number of teachers categorized by gender, race, years taught, and education level. The data in Table 2 was obtained from the first and three-month follow-up collection point from the demographic questionnaires.

The total number of teachers in treatment and control groups who completed the first survey was N=139, however, not all the teachers provided complete demographic data. In both the treatment group and control group, females were the dominant gender reported, 81.8 percent (n=63) and 71.7 percent (n=43), respectively. The majority of the treatment group was from the county school district, which accounts for the racial imbalance; 93.5 percent (n=72) of the teachers identified as white/Caucasian.

Table 3			
<i>Descriptive Data of Number and Percentage of Total Teacher Sample from the First Survey Data Collection Point</i>			
	Treatment N   %	Control N   %	Total N   %
<b>Gender</b>			
Male	n= 14; 18.2%	n= 17; 28.3%	31; 22.6%
Female	n= 63; 81.8%	n= 43; 71.7%	106; 77.4%
Total	n=77; 56.2%	n=60; 43.8%	N=137; 98.6%
<b>Race</b>			
Caucasian	n= 72; 93.5%	n= 30; 50%	102; 74.5%
Black/AA	n= 2; 2.60%	n= 27; 45%	29; 21.2%
Other	n= 3; 3.90%	n= 3; 5%	6; 4.4%
Total	n= 77; 56.2%	n= 60; 43.8%	N=137; 98.6%
<b>Years Taught</b>			
<2	n= 6; 7.9%	n= 13; 21.7%	n= 19; 14.0%
2-5	n= 11; 14.5%	n= 9; 15%	n= 20; 14.7%
6-10	n= 20; 26.3%	n= 13; 21.7%	n= 33; 24.3%
11-15	n= 19; 25%	n= 1; 1.7%	n= 29; 25.7%
>15	n= 20; 26.3%	n= 15; 25%	n= 35; 25.7%
Total	n= 76; 55.9%	n= 60; 44.1%	N=136; 97.8%
<b>Educational Level</b>			
Bachelors	n=35; 44.9%	n=29; 48.3%	n= 64; 46.4%
Masters	n= 37; 47.4%	n= 22; 36.7%	n= 59; 42.8%
Specialist	n= 6; 7.7%	n= 7; 11.7%	n= 13; 9.6%
Ph.D.	n= 0; 0%	n= 2; 3.3%	n= 2; 1.4%
Total	n= 78; 56.5%	n= 60; 43.5%	N=138; 99.3%
<b>Subject Taught</b>			
Art	n= 1; 1.3%	n= 0; 0%	n=1; .74%
English	n= 20; 26.7%	n= 6; 10%	n= 26; 19.3%
Computer Science	n= 0; 0%	n= 1; 1.7%	n= 1; .74%
History/Social Studie	n= 12; 16%	n= 8; 13.3%	n= 20; 14.8%
Math	n= 11; 14.7%	n= 9; 15%	n= 20; 14.8%
Music	n= 1; 1.3%	n= 1; 1.7%	n= 2; 1.5%
PE	n= 5; 6.7%	n= 8; 13.3%	n= 13; 9.6%
Science	n= 9; 12%	n= 7; 11.7%	n= 16; 11.9%
Special Education	n= 5; 6.7%	n= 12; 20%	n= 17; 12.6%
Other	n= 7; 9.3%	n= 5; 8.3%	n= 12; 8.9%
Multiple	n= 3; 4%	n= 4; 6.7%	n= 7; 5.2%
Total	n= 75; 55.6%	n= 60; 44.4%	N=135

**Descriptive statistics for the three-month follow-up data collection point.** Descriptive statistics for all the teachers who completed the three-month follow-up survey, prior to teacher inservice, can be found in Table 4. Table 4 provides the number of teachers categorized by gender, race, years taught, subject taught, and education level. The data in Table 3 was obtained from the three-month follow-up collection point from the demographic questionnaires.

The total number of teachers in treatment and control groups who completed the three-month follow-up survey was N=123, however, not all the teachers provided complete demographic data. In both the treatment group and control group, females were the dominant gender reported, 80.6 percent (n=58) and 70 percent (n=35), respectively. The majority of the treatment group was from the county school district, which once again accounts for the racial imbalance; 94.4 percent (n=67) of the teachers identified as white/Caucasian.

Table 4			
<i>Descriptive Data of Number and Percentage of Total Teacher Sample from the Three-Month Follow-Up Survey Data Collection Point</i>			
	Treatment N   %	Control N   %	Total N   %
<b>Gender</b>			
Male	n= 14; 19.4%	n= 15; 30%	29; 23.8%
Female	n= 58; 80.6%	n= 35; 70%	93; 76.2%
Total	n=72; 59%	n=50; 41%	N=122; 99.2%
<b>Race</b>			
Caucasian	n= 67; 94.4%	n= 21; 42.9%	88; 73.3%
Black/AA	n= 3; 4%	n= 26; 53.1%	29; 24.2%
Other	n= 1; 1%	n= 2; 4%	3; 2.5%
Total	n= 71; 59.2%	n= 49; %	N=120; 97.6%
<b>Years Taught</b>			
<2	n= 7; 9.7%	n= 10; 20.4%	n= 17; 14%
2-5	n= 10; 13.9%	n= 8; 16.3%	n= 18; 14.9%
6-10	n= 17; 23.6%	n= 11; 22.4%	n= 28; 23.1%
11-15	n= 17; 23.6%	n= 9; 18.4%	n= 26; 21.5%
>15	n= 21; 29.2%	n= 11; 22.4%	n= 32; 26.4%
Total	n= 72; 59.5%	n= 49; 40.5%	N=121; 98.4%
<b>Educational Level</b>			
Bachelors	n= 37; 50.7%	n= 22; 44%	n= 59; 48%
Masters	n= 32; 43.8%	n= 19; 38%	n= 51; 41.5%
Specialist	n= 4; 5.5%	n= 7; 14%	n= 11; 8.9%
Ph.D.	n= 0; 0%	n= 2; 5%	n= 2; 1.6%
Total	n= 73; 59.3%	n= 50; 40.7%	N=123; 100%
<b>Subject Taught</b>			
Art	n= 1; 1.4%	n= 0; 0%	n= 1; 0.8%
English	n= 19; 27.1%	n= 5; 10%	n= 24; 20%
Computer Science	n= 0; 0%	n= 1; 2%	n= 1; 0.8%
History/Social Studies	n= 10; 14.3%	n= 7; 14%	n= 17; 14.2%
Math	n= 9; 12.9%	n= 9; 18%	n= 18; 15%
Music	n= 1; 1.4%	n= 1; 2%	n= 2; 1.7%
PE	n= 7; 10%	n= 5; 10%	n= 12; 10%
Science	n= 8; 11.4%	n= 7; 14%	n= 15; 12.5%
Special Education	n= 6; 8.6%	n= 9; 18%	n= 15; 12.5%
Other	n= 4; 5.7%	n= 5; 10%	n= 9; 7.5%
Multiple	n= 4; 5.7%	n= 2; 4%	n= 6; 5%
Total	n= 70; 58.3%	n= 50; 41.7%	N=120; 97.6%

## Summary

The dissertation study examined middle school teachers' reported self-perceptions of their teacher knowledge, frequency of use, and confidence in identification, prevention, and intervention of relational aggression as well as teacher factors that related to their knowledge, frequency of use, and confidence in identification, prevention, and intervention of relational aggression as measured by an adapted version of the TISK and a Confidence Scale. Additionally, it assessed the impact of a targeted teacher training focused specifically on relational aggression. The population of the study was middle school teachers in the southeast region of the United States. The dissertation study relied on a quasi-experimental design with two survey points (pre-test, 3-month post-test). The sample was conveniently assigned to either a treatment group or a control group, based on response from principals of each school.

The assessment of teacher knowledge and frequency of use in identification, prevention, and intervention and total confidence of relational aggression occurred at two data points through use of an adapted version of the Teacher Inventory of Skills and Knowledge (TISK, Newman et al., 2000) and Confidence Scale. The survey was distributed by this researcher to the sample of middle school teachers prior to the targeted in-service. Next, the researcher conducted a targeted in-service for teachers assigned to the treatment group. The in-service was developed for this study and informed by the literature as well as the Bully Buster program (which was created alongside the TISK). The teacher training consisted of a one-hour training session that focuses on relational aggression. Next, the study assessed the long-term impact of the in-service by surveying for a second time both the treatment and control groups, with surveys completed at the three-month follow up.

## CHAPTER 4

### RESULTS

This study's primary focus is to better understand middle school teachers' self-reported perceptions of their (a) *knowledge* about identification, prevention, and intervention strategies for relational aggression; (b) *frequency* of using identification, prevention, and intervention strategies for relational aggression among their own students; and (c) *confidence* related to identifying, preventing, and intervening in relational aggression in their classroom. In addition, the impact that demographic factors (gender, race, subject taught, years of experience, and highest education level) have on teachers self-reported perceptions was examined.

The study performed a targeted in-service for middle school teachers that focused on increasing knowledge, frequency of use, and confidence related to identification, prevention, and intervention of relational aggression. The study reviewed the impact related to the targeted in-service training for middle school teachers on relational aggression by again surveying those teachers who received the in-service as well as the teachers in the control group who did not receive the in-service training. A survey was administered immediately post-training (one-week post-training survey) to the treatment group and one week after the first survey was picked up from the control group schools. This data collection point was not utilized for the final data analysis due to low return rate (less than 50%) as well as incomplete demographic data for several schools. However, a successful three-month follow-up survey was conducted for the middle school teachers in both the treatment and control groups.

## **Research Questions**

The following research questions guided this study:

### **Research Question 1: Middle School Teachers' Reported Self-Perceptions**

What are middle school teachers' reported self-perceptions of the following:

- a) Knowledge about identification, prevention, and intervention strategies for relational aggression, as measured by the adapted TISK;
- b) Frequency in using identification, prevention, and intervention strategies for relational aggression among their own students as measured by the adapted TISK;
- c) Confidence in identifying, preventing, and intervening in relational aggression among their students, as measured by the Confidence Scale.

### **Research Question 2: Variables Related to Middle School Teachers' Reported Self-Perceptions**

Do teacher demographic variables (Highest degree achieved, years of experience teaching, type of class/subject taught, gender, and race/ethnicity) relate to middle school teachers' reported self-perceptions of the following:

- a) Knowledge about identification, prevention, and intervention strategies for relational aggression, as measured by the adapted TISK;
- b) Frequency in using identification, prevention, and intervention strategies for relational aggression among their own students, as measured by the adapted TISK;
- c) Confidence in identifying, preventing, and intervening in relational aggression among their students, as measured by the Confidence Scale.

### **Research Question 3: Differences Between Middle School Teachers' Reported Self-Perceptions Post In-Service.**

Is there a difference between middle school teachers who participate in a targeted in-service compared to teachers who do not participate in a targeted in-service *before the targeted in-service and three-months post in-service* regarding reported self-perceptions of the following:

- a) Knowledge about identification, prevention, and intervention strategies for relational aggression, as measured by the adapted TISK;
- b) Frequency in using identification, prevention, and intervention strategies for relational aggression among their own students, as measured by the adapted TISK;
- c) Confidence in identifying, preventing, and intervening in relational aggression among their students, as measured by the Confidence Scale.

### **Results for Research Question 1: Middle School Teachers' Reported Self-Perceptions**

To address Research Question 1, all the data was obtained from all the first surveys, the adapted TISK and Confidence Scale, from all the participating teachers (N=139). The majority of the teachers completed the first survey between the end of September through the end of November with two of the schools completing the first surveys at the beginning of January.

The sample of middle school teachers, overall, rated themselves on items in the Knowledge category as either U-Unfamiliar (1), S-Somewhat familiar (2), or V-Very familiar (3). The Frequency of Use category was rated on items as either N-Never (1), S-Sometimes (2), or O-Often (3). The survey addressed three indices: Identification, Prevention, and Intervention, which was combined to obtain a Total Knowledge score and a Total Frequency of Use Score. Confidence was rated on a 5-point Likert scale (1 indicated not at all confident, 2 indicated "somewhat confident", 3 indicated "not sure", 4 indicated "confident", and 5 indicated "very

confident”) with all three items combined to obtain a Total Confidence score. The first research question, in accordance with the data management plan (see Appendix I), included data from survey collection point one and was analyzed using descriptive statistics.

### **Descriptive Statistics for Knowledge Items**

Knowledge on the adapted TISK consisted of 38 items that were divided into 3 categories: Identification (12 items), Prevention (13 items), and Intervention (13 items). All items were scored by middle school teachers on a 1-3 scales. A score of 1 indicated “Unfamiliar”, 2 indicated “Somewhat Familiar”, and 3 indicated “Very Familiar”. Table 5 provides lowest scoring Knowledge items with number of participants, *Means*, *SDs*, Ranges, Frequencies, and Percentages for the scored answers on the first survey. Appendix L provides a description of all items, category of each item, as well as the number of participants, *Means*, *SDs*, and Ranges for the scored answers on the first survey.

The Knowledge-Identification items were the lowest scored items by all the participating teachers when compared to the other Knowledge variables (Knowledge-Prevention and Knowledge-Intervention). This indicates the teachers were the least familiar with identifying relational aggression and related behaviors among their students. Out of the twelve items for Knowledge-Identification, five items averaged below midpoint (“somewhat familiar”). The lowest scored items for Knowledge-Identification by the teachers asked their familiarity with identifying functions of relational aggression (Item 17,  $M=1.70$ ,  $SD=.64$ ), defining relational aggression to others (Item 37,  $M=1.73$ ,  $SD=.66$ ), and explaining the different types of relational (Item 38,  $M=1.64$ ,  $SD=.64$ ). These low scored items by the teachers indicate they were “unfamiliar” to “somewhat familiar” with relational aggression definition, characteristics, and functions. This is consistent with the teachers reporting they were unaware

of relational aggression's definition while completing the first survey.

All the Knowledge-Prevention items from the first survey averaged above the midpoint indicating the middle school teachers knowledge of relational aggression fell between "somewhat familiar" to "very familiar" of prevention strategies. The lowest scored Knowledge-Prevention items by all the participating teachers asked the teachers to indicate how familiar they were with using group problem solving for and with other teachers (Item 29,  $M=2.20$ ,  $SD=.64$ ) and the benefits of when teacher/school provides workshops, seminars, and other opportunities for parents to seek new information and skills about relational aggression (Item 33,  $M=2.21$ ,  $SD=.72$ ). The majority of the teachers participating in the in-service training expressed their frustrations when reaching out to or working with parents. In addition, the teachers informally reported they had not attended previous trainings, workshops, or professional development on relational aggression.

The majority of the Knowledge-Intervention items were above the midpoint ("somewhat familiar") with only two items below. This indicates, overall, the middle school teachers self-reported knowledge of the intervention techniques is "somewhat familiar" to "very familiar" for relational aggression among their students. The lowest scored Knowledge-Intervention items by all the participating teachers asked how familiar they were with the "Four R's" of bully control: Recognize, Remove, Review, Respond (Item 10,  $M=1.83$ ,  $SD=.67$ ) and the value of following up on relationally aggressive incidents (Item 21,  $M=1.88$ ,  $SD=.64$ ).

Table 5						
<i>Lowest-scoring Knowledge of Relational Aggression Items from adapted TISK</i>						
Item Category	N	M	SD	Frequency of Each Response Choice		
				Unfamiliar	Somewhat Familiar	Very Familiar
<b>Knowledge-Identification</b>						
17. The functions of relationally aggressive behavior.	139	1.70	.64	40.3%	49.6%	10.1%
37. Explaining relational aggression Definition to students, parents, and/or colleagues.	139	1.73	.66	38.8%	49.6%	11.5%
38. Explaining the different <i>types</i> of Relational Aggression to students, parents, and/or colleagues.	139	1.6	.64	44.6%	46.8%	8.6%

<b>Knowledge-Prevention</b>							
29. Using group problem solving for and with other teachers.	139	1-3	2.20	.64	12.2%	55.4%	32.4%
33. The benefits of when teacher/school provides workshops, seminars, and other opportunities for parents to seek new information and skills about relational aggression.	139	1-3	2.21	.72	17.3%	44.6%	38.1%
<b>Knowledge-Intervention</b>							
10. The “Four R’s” of bully control: Recognize, Remove, Review, Respond.	139	1-3	1.83	.67	32.4%	52.5%	15.1%
21. The value of following up on relationally aggressive incidents.	139	1-3	1.88	.64	27.3%	57.6%	15.1%

## Descriptive Statistics for Knowledge Categories

Table 6 shows overall descriptive statistics for number of participants, Means, SDs, Median, and Range. The mean was calculated by determining average item score across *all items* in the given category. The middle school teachers scored their Total Knowledge as falling between “somewhat familiar” and “very familiar” (M=2.35, SD=.375), indicating the teachers believe they are knowledgeable regarding identification, prevention, and intervention related to relational aggression among their students. Comparing the three categories that make up Total Knowledge (identification, prevention, intervention), knowledge-identification was the weakest with teachers reporting “somewhat familiar” with the knowledge items within this category (M=2.07, SD=.465).

	N	M	SD	Median	Range
Total Knowledge	139	2.35	.375	1.59	1.59-3.00
Identification	139	2.07	.465	1.92	1.08-3.00
Prevention	139	2.47	.354	1.31	1.69-3.00
Intervention	139	2.31	.376	1.62	1.38-3.00
Total Frequency of Use	139	2.30	.315	1.55	1.55-3.00
Identification	139	2.00	.400	2.00	1.00-3.00
Prevention	139	2.50	.296	1.38	1.62-3.00
Intervention	139	2.38	.336	1.69	1.31-3.00
Total Confidence	135	2.83	1.03	4.00	1.00-5.00

*Note:* N=total number of participants; M=Mean; SD=Standard Deviation

## Descriptive Statistics for Frequency of Use Items

Frequency of Use on the adapted TISK consisted of 38 items that were divided into 3 categories: Identification (12 items), Prevention (13 items), and Intervention (13 items). All items were scored by middle school teachers on a 1-3 scale. A score of 1 indicated “Never”, 2

indicated “Somtimes”, and 3 indicated “Often”. Table 7 provides the lowest-scoring Frequency of Use items with number of participants, *Means*, *SDs*, Ranges, Frequencies, and Percentages for the scored answers on the first survey. Appendix L provides a description of all items as well as the number of participants, *Means*, *SDs*, and Ranges for the scored answers from the first survey.

The majority of the items for *Frequency of Use-Identification* are below the midpoint (2 “sometimes”) indicating the majority teachers frequency of use in identifying relational aggression among their students was “never” to “sometimes”. The lowest scored items by all the participating teachers for Frequency of Use-Identification asked how often teachers explain relational aggression to others (Item 37,  $M=1.62$ ,  $SD=.64$ ) and explain the different *types* of relational aggression to others (Item 38,  $M=1.54$ ,  $SD=.63$ ). These scores indicate middle school teachers “never” to “sometimes” participate in these discussions for identifying relational aggression.

All the *Frequency of Use-Prevention* items from the first survey averaged above the midpoint (2 “sometimes”) except for one item indicating that, overall, middle schools “sometimes” to “often” use the identified prevention strategies for relational aggression among their students. The lowest scored item, and the only item under midpoint, for Frequency of Use-Prevention asked teachers how often they engaged in teacher/school led workshops, seminars, and other opportunities for parents to seek new information and skills about relational aggression (Item 33,  $M=1.99$ ,  $SD=.64$ ). The middle school teachers indicated they “never” to “sometimes” provided parents with new information and skills about relational aggression.

The majority of the items scored for *Frequency of Use-Intervention* by all participating middle school teachers were above the midpoint (2 “sometimes”) with only two items below indicating, overall, teachers “sometimes” to “often” provided the intervention strategies for

relational aggression addressed on the Adapted TISK. The lowest scored items for Frequency of Use-Intervention by all the participating teachers asked teachers how frequently they use the “Four R’s” of bully control: Recognize, Remove, Review, Respond (Item 10,  $M=1.86$ ,  $SD=.63$ ) and following up on relationally aggressive incidents (Item 21,  $M=1.94$ ,  $SD=.66$ ).

Table 7

*Lowest-scoring Frequency of Use of Relational Aggression Items from adapted TISK*

Item Category	N	Range	M	SD	Frequency		
					Never	Sometimes	Often
Frequency of Use-Identification							
37. Explaining relational aggression Definition to students, parents, and/or colleagues.	139	1-3	1.62	.64	65(46.8)	62(44.6)	12(8.6)
38. Explaining the different <i>types</i> of Relational Aggression to students, parents, and/or colleagues.	139	1-3	1.54	.63	74(53.2)	55(39.6)	10(7.2)
Frequency of Use-Prevention							
33. The benefits of when teacher/school provides workshops, seminars, and other opportunities for parents to seek new information and skills about relational aggression.	139	1-3	1.99	.64	29(20.9)	82(59.0)	28(20.1)
Frequency of Use-Intervention							
10. The “Four R’s” of bully control: Recognize, Remove, Review, Respond.	139	1-3	1.86	.63	39(28.1)	81(58.3)	19(13.7)
21. The value of following up on relationally aggressive incidents.	139	1-3	1.94	.66	34(24.6)	78(56.5)	26(18.8)

### **Descriptive Statistics for Frequency of Use Categories**

Table 6 shows descriptive statistics for number of participants, *Means*, *SDs*, Median, and Range. The middle school teachers rated their Total Frequency of Use as falling between “sometimes” and “often” ( $M=2.30$ ,  $SD=.315$ ), indicating the teachers believe they frequently use the skills on the Adapted TISK regarding identification, prevention, and intervention related to relational aggression among their students. Comparing the three categories that make up Total Frequency of Use (identification, prevention, intervention), frequency of use-identification was the weakest with teachers reporting they “sometimes” use identification techniques within this category ( $M=2.00$ ,  $SD=.400$ ).

### **Descriptive Statistics for Total Confidence**

Table 6 shows descriptive statistics for number of participants, *Means*, *SDs*, Median, and Range. The middle school teachers’ Total Confidence score was less than the midpoint ( $M=2.83$ ,  $SD=1.03$ ) indicating a relatively weaker confidence level related to relational aggression when compared to teachers’ knowledge and frequency of use of skills. The teachers’ Total Confidence score fell between only “somewhat confident” and “not sure.” Also, four participants chose not to response to the Confidence scale items.

## **Results for Research Question 2: Variables Related to Middle School Teachers’ Reported Self-Perceptions**

### **Research Question 2: Variables Related to Middle School Teachers’ Reported Self-Perceptions**

Research Question 2 was also addressed using the data obtained from the first survey that was completed by all the participating middle school teachers. As stated above, all the first surveys were administered between the end of September through the beginning of January for both the treatment and control groups. The range of scores on the survey for Knowledge and

Frequency of Use was 1-3 with the Confidence range at 1-5 (3 being “not sure”). The second research question, in accordance with the data management plan (see Appendix I), included data from survey collection point one and was analyzed using one-way ANOVA.

### **Explanation of Demographic Data**

The original demographic variables included gender, race/ethnicity, subject taught, years taught, and highest degree achieved. A preliminary analysis to determine which demographics related to the variable of interests, the final analysis including three of the five original demographic variables (gender, subject taught, and highest degree achieved).

Race/Ethnicity included American Indian/Alaska Native, Asian, Black/African American, Hispanic/Latino/Spanish origin, Native Hawaiian/Other Pacific Islander, White/Caucasian, and Multiple. Years taught included Less than 2 years, 2-5 years, 6-10 years, 11-15 years, and More than 15 years. These two demographic variables were not used in the final analysis due to preliminary analysis indicating no significance.

Gender included male and female. Subjects taught were combined into “General Education Core classes” which included English, Math, History/Social Studies, Science, and Multiple Subjects and “Other classes” including Art, Computer Science, Music, PE, Special Education, and Other. Each of these areas were initially groups in and of themselves, but the groups were combined due to the small number of participants identified in certain Subjects Taught. Highest Degree Achieved were combined into Bachelors (n=64) and Graduate Level which included Masters, Specialist, and PhD (n=74). The smaller groups for Subjects Taught and Highest Degree Achieved were placed in two groups for analysis purposes.

Descriptive statistics for these demographic variables can be found in Appendix J. Appendix J provides the number of participants, *Means and SDs* for middle school teachers’

self-reported Knowledge, Frequency of Use, and Confidence in Identification, Prevention, Intervention and Total of relational aggression, as rated on the adapted TISK with the Confidence Scale.

### **Analysis of Research Question 2**

A preliminary analysis was run to determine which dependent variables (Knowledge, Use, and Confidence measures) were related to the variables of interest (demographics categories). After analyzing the results, it was determined race and years taught had no significant impact on the dependent variables; therefore they were eliminated from further analyses.

The remaining independent variables of interest were gender, subject taught, and highest education level. Subjects taught were combined into “General Education Core classes” which included English, Math, History/Social Studies, Science, and Multiple Subjects and “Other classes” including Art, Computer Science, Music, PE, Special Education, and Other. Highest Education Level were combined into Bachelors and Graduate Level which included Masters, Specialist, and PhD. The smaller groups for Subjects Taught and Highest Education Level were placed into two groups for data analysis purposes.

**Gender.** Gender was broken into two groups: male (n=31) and female (n=106). Appendix J provides all descriptive statistics for gender. Table 8 provides the descriptive statistics for gender that revealed noteworthy *mean* differences (see Appendix J for all mean differences). Descriptive statistics for gender revealed males tended to score themselves higher on all the dependent variables. Specifically, males were markedly higher than females (Table 8), on average, in Frequency of Use-Identification (Males had  $M=2.18$ ,  $SD=.46$ , Females had  $M=1.97$ ,  $SD=.37$ ), Frequency of Use-Prevention (Males had  $M=2.55$ ,  $SD=.30$ , Females had

M=2.49, SD=.30), and Total Confidence (Males has M=3.48, SD=.96, Females had M=2.65, SD=.97). Table 8 also reports the Total Confidence showed the greatest gender gap in scoring where males rated their confidence between “not sure” (3) to “confident” (4) while females rated their confidence “somewhat confident”(2) to “not sure” (3).

Table 8			
<i>Descriptive Statistics for Gender of Frequency of Use-Identification, Frequency of Use-Prevention, and Total Confidence of Relational Aggression Reported on First Survey Completed by All Middle School Teachers</i>			
Gender	Frequency of Use-Identification	Frequency of Use-Prevention	Total Confidence
Male	M= 2.18 SD=.46 n=31	M=2.55 SD=.30 n=31	M=3.48 SD=.96 n=30
Female	M=1.95 SD=.37 n=106	M=2.49 SD=.30 n=106	M=2.65 SD=.97 n=103
Total	M=2.00 SD=.40 N=137	M=2.50 SD=.30 N=137	M=2.84 SD=1.03 N=133

**Subject taught.** The groups were combined into “General Education Core classes” which included English, Math, History/Social Studies, Science, and Multiple Subjects (n= 100) and “Other classes” including Art, Computer Science, Music, PE, Special Education, and Other (n= 35). The groups were combined due to the small number of participants identified in certain Subjects Taught. The smaller groups for Subjects Taught were placed into “General Education Core classes” or “Other classes” group for data analysis purposes. This division of Subjects Taught was logical based on how the school districts identified English, Math, History/Social Studies, and Science as core classes in general education curriculum. The Multiple Subjects were added to the “General Education Core classes” due to the teachers identifying more than one general education core course taught.

Table 9 provides the descriptive statistics for subject taught that revealed noteworthy *Mean* differences. Appendix J provides all descriptive statistics for subject taught. Descriptive statistics for subject taught revealed that “general education core classes” teachers ranked themselves lower on all dependent variables when compared to “other classes” teachers. Specifically, “other classes” teachers scored themselves markedly higher (observed difference) in Frequency of Use-Identification (Other classes had M=2.19, SD=.50, General education classes has M=1.93, SD=.34), Frequency of Use-Prevention (Other classes had M=2.62, SD=.28, General education classes has M=2.47, SD=.30), and Total Confidence (Other classes had M=3.38, SD=1.11, General education classes has M=2.65, SD=.93).

Once again, Total Confidence scores revealed a stark contrast between “general education core classes” teachers and “other classes”. “General education core classes” scored their Total Confidence between “somewhat confident” to “not sure” (M=2.65, SD=.93) whereas “other classes” teachers scored between “not sure” to “confident” (M=3.38, SD=1.11). This is an interesting finding as a “general education core classes” teacher typically has more interactions with the students throughout the day and week.

Table 9			
<i>Descriptive Statistics for Subjects Taught of Frequency of Use-Identification, Frequency of Use-Prevention, and Total Confidence of Relational Aggression Reported on First Survey Completed by All Middle School Teachers</i>			
Subject Taught	Frequency of Use-Identification	Frequency of Use-Prevention	Total Confidence
General Ed Core Classes	M=1.93 SD=.34 n=100	M=2.47 SD=.30 n=100	M=2.65 SD=.93 n=97
Other Classes	M=2.19 SD=.50 n=35	M=2.62 SD=.28 n=35	M=3.38 SD=1.11 n=34
Total	M=2.00 SD=.41 N=135	M=2.51 SD=.30 N=135	M=2.84 SD=1.03 N=131

**Highest education level.** The groups were combined into Bachelors (n=64) and Graduate Level which included Masters, Specialist, and PhD (n=74). The groups were combined due to the small representation within the graduate degrees.

Table 10 provides the descriptive statistics for highest education level that revealed noteworthy *Mean* differences. Appendix J provides all descriptive statistics for highest education level. Descriptive statistics for highest education level revealed Bachelor level degrees scored slightly higher in most dependent variables than graduate level degrees. In this comparison, Total Confidence had only a very slightly higher score (observed difference only) for the Bachelor level degrees (M=2.88, SD=1.04) than the graduate level degree (M=2.81, SD=1.01). Though this difference is very small, it is worth noting because graduate level degrees typically have more specific training and knowledge than Bachelor degrees. The fact that the two groups scored themselves equally is intriguing.

Table 10	
<i>Descriptive Statistics for Highest Education of Total Confidence of Relational Aggression Reported on First Survey Completed by All Middle School Teachers</i>	
Highest Education	Total Confidence
Bachelor's Level	M=2.88 SD=1.04 n=62
Graduate Level	M=2.81 SD=1.01 n=72
Total	M=2.84 SD=1.02 N=134

## Tests of Assumptions for ANOVA

There are three primary assumptions necessary when conducting a one-way ANOVA. Assumption one states the dependent variable should be measured on a continuous scale. Assumption one is met as all the dependent variables for knowledge and frequency of use were measured on a continuous scale of 1 to 3. The confidence variables were measured on a continuous scale of 1 to 5.

Assumption two indicates the same subjects are present in both groups. Assumption two was met because research question 2 had one data collection point

Assumption three states there should be no significant outliers. Levene's Test of Homogeneity of Variance showed the assumption of the equality of variance was met. Assumption four indicates there should be normal distribution. All variables tested within appropriate boundaries for skewness, ranging between -.335 to .365. Regarding kurtosis, all but two variables were within acceptable scores, ranging from -.966 to .197. The two variables that have questionable kurtosis were Knowledge-Prevention (-1.063) and Confidence-Intervention (-1.106).

## One-Way ANOVA Results Research Question 2: Demographic Variables Related to Middle School Teachers' Reported Self-Perceptions

Data was analyzed for research question 2 using one-way ANOVA. Appendix M reports one-way ANOVA results for gender, subject taught, and highest education level. Table 11 provides the *significant* findings for gender and subject taught. Highest education level and subject taught revealed *no significant* results. To control for Type I error, alpha was divided by the number of tests run ( $.05/9=.006$ ). Significant findings are described below.

**Knowledge-identification and gender.** Analysis of variance showed a main effect of gender on Knowledge-Identification,  $F(1, 126) = 8.090, p=.005, \eta_p^2 = .060$ . There is a

statistically significant difference between the average scores of males and females regarding knowledge-identification. Males knowledge-identification (M=2.42, SD=.451) was higher than females (M=1.97, SD=.431). Therefore, male teachers reported higher knowledge in identifying relational aggression among students than female teachers.

**Total confidence and gender.** Analysis of variance showed a main effect of gender on Total Confidence,  $F(1, 122) = 11.009, p=.001, \eta_p^2 = .083$ . There is a statistically significant difference between the average score of males versus females in regards to total confidence. Male total confidence (M=3.56) was higher than female total confidence (M=2.61). Therefore, males reported more confidence regarding relational aggression than females.

Table 11				
<i>ANOVA Table for Gender for Knowledge-Identification and Total Confidence of Relational Aggression Reported on the First Adapted TISK by All Middle School Teachers</i>				
	<i>df</i>	<i>F</i>	$\eta_p^2$	<i>p</i>
Gender				
Knowledge-Identification	1, 126	8.090	.060	.005
Total Confidence	1, 122	11.009	.083	.001

### **Results for Research Question 3: Differences Between Middle School Teachers’ Reported Self-Perceptions Post In-Service**

The third research question was answered using the two survey data collection points (the first survey and the three-month follow-up) and was analyzed, in accordance with the data management plan (see Appendix I), using the dependent samples t-test. The group comparisons included the dependent variables from the first survey and 3-month post-treatment survey for both the treatment and control groups. The dependent variables used to answer research question three included knowledge of identification, prevention, intervention, and total knowledge;

frequency of use in identification, prevention, intervention, and total frequency of use; and total confidence. Once again, there was an additional survey (immediate follow-up survey) that was administered but not used to analyze research question three due to insufficient return rate and demographic data.

### **Descriptive Statistics for Research Question 3**

For Research Question 3, both data collection points (pre-training survey and 3-month post training survey) were used to address the question for both the treatment and control groups. The range on the survey for knowledge and frequency of use was 1-3 with the Confidence range at 1-5 (3 being “not sure”).

Descriptive statistics for all the variables used in Research Question 3 can be found in Table 12. Appendix N, provides the number of participants, *Means, and Standard Deviations* for middle school teachers’ self-reported knowledge, frequency of use, and confidence in identification, prevention, intervention and total of relational aggression, as rated on the adapted TISK with a Confidence Scale. Table 12 provides the number of participants, *Means, and Standard Deviations* for middle school teachers’ self-reported Total Knowledge, Total Frequency of Use, and Total Confidence of relational aggression, as rated on the adapted TISK with a Confidence Scales.

The total number of participants completing the adapted TISK survey at both the first survey point and the 3-month follow-up was 123, with 5 participants not completing the Confidence scale. The control group averaged higher scores for Total Knowledge ( $M=2.41$ ,  $SD=.36$ ), Total Frequency of Use ( $M=2.34$ ,  $SD=.32$ ), and Total Confidence ( $M=2.95$ ,  $SD=1.05$ ) at the first survey point. However, 3-month post-training, the treatment group averaged higher

ratings on the survey from the first survey point as well as higher scores in Total Knowledge (M=2.63, SD=.27) and Total Confidence (M=3.61, SD=.90).

*Table 12*

*Descriptive Statistics for Total Frequency of Knowledge, Use, and Confidence in Identification, Prevention, and Intervention of Relational Aggression Reported by Pre-Training and 3-Month Post-Training for Treatment, Control Groups and the Combination of Treatment and Control Groups*

	Pre-Training			3-Month Post-Training		
	Treatment	Control	Combined	Treatment	Control	Combined
Total Knowledge	M=2.29 SD=.38 n=74	M=2.41 SD=.36 n=49	M=2.34 SD=.37 N=123	M=2.63 SD=.27 n=74	M=2.57 SD=.37 n=49	M=2.60 SD=.31 N=123
Total Frequency of Use	M=2.25 SD=.31 n=74	M=2.34 SD=.32 n=49	M=2.29 SD=.31 N=123	M=2.63 SD=.24 n=74	M=2.66 SD=.27 n=49	M=2.64 SD=.25 N=123
Total Confidence	M=2.73 SD=.98 n=73	M=2.95 SD=1.05 n=45	M=2.81 SD=1.01 N=118	M=3.61 SD=.90 n=73	M=3.30 SD=1.23 n=45	M=3.49 SD=1.04 N=118

Note: M=Mean, SD=Standard Deviation; Range for all Knowledge and Use categories is 1-3; Range for all Confidence categories is 1-5.

### **Tests of Assumptions**

There are four primary assumptions necessary when conducting a dependent samples t-test, with the first two being met simply in the research design portion of the study and the final two assumptions being met through SPSS testing.

Assumption one is that the dependent variable is measured on a continuous scale. This assumption was met with the use of the TISK and Confidence scales.

Assumption two is that the independent variables consist of two categorical groups. This assumption was met with the selection, placement, and retention of subjects.

Assumption four regards normal distribution. This assumption was assessed through SPSS by running a Shapiro-Wilk test of normality. This assumption was not met for all dependent variables however. Dependent Samples T-test is robust to violations of multivariate

normality if groups are roughly equal (Hair et al, 1998; Leech et al, 2011; Stevens, 2009). Alpha level of .05 was adjusted to .01 to account for the use of non-parametric distribution regarding all dependent variables.

### **Dependent Samples T-Test Results for Research Question 3: Knowledge, Frequency of Use, and Confidence about Identification, Prevention, and Intervention Strategies for Relational Aggression**

#### **Dependent Samples T-Tests**

To examine the change in dependent variable scores from the initial data collection point (pretest) and the final data collection point (post-test), dependent samples t-tests were performed. The Alpha level for these analyses was set at .01 due to the non-normal distributions of several the dependent variables. To further control for error, a Bonferroni adjustment was completed for both the treatment group and control group ( $.01/9=.001$ ). Once the adjustment was made, a total of 11 out of the 18 dependent variables in *both* the Treatment (7 dependent variables) and Control (4 dependent variables) Groups were statistically significant.. Table 13 reports the significant variables for the Treatment Group. Table 14 reports the significant variables for the Control Group.

Both variables related to prevention (knowledge-prevention and frequency of use-prevention) failed to have a statistically significant increase. Interestingly, in both the Treatment and the Control Group, Frequency of Use-Prevention experienced a *decrease* ( $p < .000$ ,  $d = -.48$ ) in scores from the initial data collection point to the final collection point.

Table 13

*Treatment Group Dependent Samples T-tests: Changes in mean of dependent variables at first and second survey points*

Variable	Survey1 M (SD)	Survey2 M (SD)	t	df	p value	Effect Size
Knowledge- Intervention	2.25 (.391)	2.66 (.291)	-8.05	73	.000	.94
Knowledge- Identification	2.00 (.449)	2.72 (.266)	-11.60	73	.000	1.35
Knowledge- Total	2.29 (.378)	2.63 (.268)	-6.47	73	.000	.75
Frequency of Use- Intervention	2.33 (.351)	2.57 (.261)	-4.60	73	.000	.53
Frequency of Use- Identification	1.95 (.344)	2.63 (.240)	-14.75	73	.000	1.71
Frequency of Use- Total	2.25 (.305)	2.48 (.259)	-4.73	73	.000	.55
Confidence- Total	2.72 (.984)	3.61 (.896)	-5.89	72	.000	.69

Table 14

*Control Group Dependent Samples T-tests: Changes in mean of dependent variables at first and second survey points*

Variable	Survey1 M (SD)	Survey2 M (SD)	t	df	p value	Effect Size
Knowledge-Intervention	2.35 (.345)	2.60 (.365)	-3.59	48	.001	.51
Knowledge-Identification	2.14 (.458)	2.68 (.331)	-6.54	48	.000	.93
Frequency of Use-Identification	2.02 (.431)	2.66 (.263)	-9.66	48	.000	1.38
Frequency of Use-Total	2.34 (.318)	2.57 (.365)	-4.09	48	.000	.58

**Knowledge-Intervention.** A dependent samples t-test was conducted to compare Knowledge-Intervention scores in pretest and post-test data collection points among the Treatment and Control Groups.

In the *Treatment Group*, there was a significant difference in the Knowledge-Intervention pre-test scores (M=2.25, SD=.392) and post-test scores (M=2.66, SD=.291);  $t(73)=-8.054$ ,  $p = .000$ ,  $d = .94$ . This means that Knowledge-Intervention scores experienced a significant increase in scoring for the Treatment Group from the initial data collection point to the final collection point.

In the *Control Group*, there was a significant difference in the Knowledge-Intervention pre-test scores (M=2.35, SD=.345) and post-test scores (M=2.60, SD=.365);  $t(48)=-3.591$ ,  $p = .001$ ,  $d = .51$ . This means that Knowledge-Intervention scores experienced a significant

increase in scoring for the Control Group from the initial data collection point to the final collection point.

**Knowledge-Identification.** A dependent samples t-test was conducted to compare Knowledge-Identification scores in pretest and post-test data collection points among the Treatment and Control Groups

In the *Treatment Group*, there was a significant difference in the Knowledge-Identification pre-test scores ( $M=2.00$ ,  $SD=.449$ ) and post-test scores ( $M=2.72$ ,  $SD=.266$ );  $t(73)=-11.60$ ,  $p = .000$ ,  $d = 1.35$ . This means that Knowledge-Identification scores experienced a significant increase in scoring for the Treatment Group from the initial data collection point to the final collection point.

In the *Control Group*, there was a significant difference in the Knowledge-Identification pre-test scores ( $M=2.14$ ,  $SD=.458$ ) and post-test scores ( $M=2.68$ ,  $SD=.331$ );  $t(48)=-6.54$ ,  $p = .000$ ,  $d = .93$ . This means that Knowledge-Identification scores experienced a significant increase in scoring for the Control Group from the initial data collection point to the final collection point.

**Knowledge-Total.** A dependent samples t-test was conducted to compare Knowledge-Total scores in pretest and post-test data collection points among the Treatment and Control Groups.

In the *Treatment Group*, there was a significant difference in the Knowledge-Total pre-test scores ( $M=2.29$ ,  $SD=.378$ ) and post-test scores ( $M=2.63$ ,  $SD=.268$ );  $t(73)=-6.47$ ,  $p = .000$ ,  $d = .75$ . This means that Knowledge-Total scores experienced a significant increase in scoring for the Treatment Group from the initial data collection point to the final collection point.

**Frequency of Use-Intervention.** A dependent samples t-test was conducted to compare Frequency of Use-Intervention scores in pretest and post-test data collection points among the Treatment and Control Groups.

In the *Treatment Group*, there was a significant difference in the Frequency of Use-Intervention pre-test scores ( $M=2.33$ ,  $SD=.351$ ) and post-test scores ( $M=2.57$ ,  $SD=.261$ );  $t(73)=-4.602$ ,  $p = .000$ ,  $d = .53$ . This means that Frequency of Use-Intervention scores experienced a significant increase in scoring for the Treatment Group from the initial data collection point to the final collection point.

**Frequency of Use-Identification.** A dependent samples t-test was conducted to compare Frequency of Use-Identification scores in pretest and post-test data collection points among the Treatment and Control Groups.

In the *Treatment Group*, there was a significant difference in the Frequency of Use-Identification pre-test scores ( $M=1.95$ ,  $SD=.344$ ) and post-test scores ( $M=2.63$ ,  $SD=.240$ );  $t(73)=-14.749$ ,  $p = .000$ ,  $d = 1.71$ . This means that Frequency of Use-Identification scores experienced a significant increase in scoring for the Treatment Group from the initial data collection point to the final collection point.

In the *Control Group*, there was a significant difference in the Frequency of Use-Identification pre-test scores ( $M=2.02$ ,  $SD=.431$ ) and post-test scores ( $M=2.66$ ,  $SD=.273$ );  $t(48)=-9.655$ ,  $p = .000$ ,  $d = 1.39$ . This means that Frequency of Use-Identification scores experienced a significant increase in scoring for the Control Group from the initial data collection point to the final collection point.

**Frequency of Use-Total.** A dependent samples t-test was conducted to compare Frequency of Use-Total scores in pretest and post-test data collection points among the Treatment and Control Groups

In the *Treatment Group*, there was a significant difference in the Frequency of Use-Total pre-test scores ( $M=2.25$ ,  $SD=.305$ ) and post-test scores ( $M=2.48$ ,  $SD=.259$ );  $t(73)=-4.728$ ,  $p = .000$ ,  $d = .55$ . This means that Frequency of Use-Total scores experienced a significant increase in scoring for the Treatment Group from the initial data collection point to the final collection point.

In the *Control Group*, there was a significant difference in the Frequency of Use-Total pre-test scores ( $M=2.33$ ,  $SD=.318$ ) and post-test scores ( $M=2.57$ ,  $SD=.365$ );  $t(48)=-4.089$ ,  $p = .000$ ,  $d = .59$ . This means that Frequency of Use-Total scores experienced a significant increase in scoring for the Control Group from the initial data collection point to the final collection point.

**Confidence-Total.** A dependent samples t-test was conducted to compare Confidence-Total scores in pretest and post-test data collection points among the Treatment and Control Groups. The analyses reveal an important distinction between the Treatment and Control Groups regarding confidence, whereas the Treatment Group showed a statistically significant increase in scores while the Control Group did not.

In the *Treatment Group*, there was a significant difference in the Confidence-Total pre-test scores ( $M=2.72$ ,  $SD=.984$ ) and post-test scores ( $M=3.61$ ,  $SD=.896$ );  $t(72)=-5.885$ ,  $p = .000$ ,  $d = .69$ . This means that Confidence-Total scores experienced a significant increase in scoring for the Treatment Group from the initial data collection point to the final collection point.

## Summary of Results

The first data collection point served as baseline data and provided descriptive statistics used to analyze research question one. The descriptive statistics for research question one revealed teachers scored themselves fairly high in Knowledge variables (Prevention  $M=2.47$ ,  $SD=.354$ ; and Intervention  $M=2.31$ ,  $SD=.376$ ) and Frequency of Use variables (Prevention  $M=2.50$ ,  $SD=.29$ ; and Intervention  $M=2.38$ ,  $SD=.336$ ), with a scale range of 1-3. However, teachers' self-reported Confidence in Identification ( $M=2.65$ ,  $SD=1.18$ ) and Intervention ( $M=2.79$ ,  $SD=1.12$ ) of relational aggression was below the scale's midpoint of 3.00, scale range of 1-5. This indicates teachers reported they have high levels of knowledge and skills in identification, prevention, and intervention related to relational aggression but appear to lack in confidence in identifying, preventing, and intervening in relational aggression behaviors among their students.

Research question two once again utilized data from the first data collection point and analyzed the impact specific demographic variables had on teachers' self-reported Knowledge, Frequency of Use, and Confidence in identifying, preventing, and intervening in relational aggression. Gender had a statistically significant relationship with Knowledge-Identification ( $p=.005$ ) and Total Confidence ( $p=.001$ ). Male teachers reported higher scores in the areas of knowledge-identification and total confidence than female teachers. This indicates male teachers reported higher levels of knowledge in identifying relational aggression as well as total confidence in identifying, intervening, and preventing relational aggression than female teachers.

Research question three looked at data from the first data collection point and the three-month follow up as a way to ascertain the effects the targeted in-service training had on teacher's knowledge, frequency of use, and confidence in identifying, preventing, and intervening on

relationally aggressive behaviors among their students. Results for research question three showed nearly all dependent variables in both the Treatment and Control group saw an increase in scores, with most increases being at statistically significant levels in the Treatment group. Total Confidence showed the biggest discrepancy between the Treatment and Control Groups. The Treatment Group showed a significant increase in scores in Total Confidence ( $p=.000$ ) while the Control Group did not show a significant increase in scores ( $p=.097$ ).

## CHAPTER 5

### DISCUSSION AND CONCLUSIONS

#### **Summary of the Study**

##### **Statement of Problem**

Research investigating relational aggression is sparse. Thus, there is a need to, first, better understand what teachers know about relational aggression and their perceived support from the school district they work in and, second, their ability to address relational aggression with their students (Mathieson & Crick, 2010; Nixon & Werner, 2010). Further, Walker (2010) suggests that general education teachers perceived relational aggression to be the *student's* responsibility and issue. It is therefore critical to train teachers to recognize peer-based forms of relational aggression and the potential for deep consequences. Last, it is important to examine teacher *confidence* with regard to relational aggression issues (Goryl et al., 2013). The minimal literature on relational aggression and the importance of generating a starting point for research led to the inclusion of Research Question 1 in this dissertation study, which examined teachers' self-reported perceptions regarding knowledge in identification, prevention, and intervention; frequency of use in identification, prevention, and intervention; and confidence in identification, prevention, and intervention.

Research on teacher characteristics regarding their responses to aggressive behavior also suggests further research (Yoon & Kerber, 2003). Research also indicated that it is important to understand how teachers' perceptions shape their responses toward relational aggression (e.g., Page & Smtih, 2012; Stauffer, Heath, Coyne, & Ferrin, 2012). The gap in the literature indicated

by Yoon and Kerber (2003) led to the inclusion of Research Question 2 in this dissertation study, which examined teacher factors that relate to their knowledge in identification, prevention, and intervention; frequency of use in identification, prevention, and intervention; and confidence in identification, prevention, and intervention.

Research has also indicated a need to develop programming to assist teachers with knowledge and techniques of how to intervene effectively in student aggression (Boxer, Musher-Eizenman, Dubow, Danner, & Heretick, 2006). Studies have shown that a majority of teachers believe they would benefit from training (Bradshaw et al., 2011). Lastly, this line of research has also shown a need for a systematic, long-term assessment of the development of teachers' skills in identifying and responding to relational aggression as well as evaluate the efficacy of relational aggression training and consultation (Kahn, Jones, & Weiland, 2012; Ojanen, Findley, & Fuller, 2012; Walker, 2012). The need to develop programming led to the inclusion of Research Question 3, which examined longitudinal outcomes (3 months) of a targeted in-service about relational aggression on middle school teachers.

### **Purpose of Study**

The first purpose of the dissertation study was to better understand middle school teachers' self-reported perceptions of their (a) *knowledge* about identification, prevention, and intervention strategies for relational aggression; (b) *frequency* of using identification, prevention, and intervention strategies for relational aggression among their own students; and (c) *confidence* related to identifying, preventing, and intervening in relational aggression in their classroom.

The second purpose of this study was to investigate the effects of a comprehensive relational aggression in-service training on the following variables: (a) teachers' knowledge about identification, prevention, and intervention strategies for relational aggression; (b)

frequency of using identification, prevention, and intervention strategies with their students relational aggression; and (c) confidence related to identifying, preventing, and intervening in relational aggression in their classroom. Pre-post in-service measures for the variables obtained from middle school teachers who participated in a one-hour targeted in-service was compared to a control group that will not receive the training. Post in-service data for the measures was three months later to assess longer-term effects of the in-service

## **Methodology**

**Setting.** Middle schools were the setting of focus for this study. The middle schools of interest were in the Southeast region of the United States and made up three school districts (two city school districts and one county district), six city and five county middle schools, of two moderately sized cities.

**Participants.** This study made inferences about full-time middle school teachers, in all academic areas including general education classrooms, special education classrooms, and other classroom settings (i.e. computer, physical education, art, etc.) that were employed fulltime by the six City and five County schools in three school districts.

**Instruments.** The instruments used in this study consisted of 1) an adapted version of the TISK (Newman et al., 2000), 2) a Confidence Scale, and 3) demographic questionnaire. These components addressed the variables of interest: middle school teachers' knowledge, frequency of use, and confidence regarding a number of relational aggression issues. All three variables were assessed on four categories: identification, prevention, intervention, and total. Four categories for each of the three areas combined to form the twelve dependent variables of the study. The final component of the survey was demographic items and other background factors that could have potentially influenced teacher knowledge, frequency of use, and confidence scores. These

included gender, race, education level (highest degree achieved), teaching experience (years taught), and type of class or subject taught.

The purpose of the in-service was to improve teachers' knowledge, frequency of use, and confidence in identification, prevention, and intervention regarding relational aggression. The in-service training was divided into three sections (approximately 20 minutes per section, 60 minutes total in-service). A detailed description of each section was provided in Chapter 3.

**Procedures.** Permission from IRB was obtained for both a pilot study as well as the full dissertation study. Teachers selected for the expert review and pilot study completed the surveys for content validity and reliability testing. The pilot study teachers also reviewed the in-service and participated in the training for content validity as well as for timing of the in-service presentation. After reviewing the instruments for clarity in instructions, wording of items, and overall applicability, and participating in the teacher in-service training, the teachers' feedback was requested and the suggested adjustments were considered for the dissertation study. There were no major recommended adjustments.

Three school districts (2 city and 1 county) were recruited and involved the following three steps: 1) Initial contact with and acquiring permission to contact the schools from each school district's superintendent or other appropriate administrator, 2) contact with each school's principal to obtain permission to conduct the study at his or her school (including surveys, in-service program, contacting teachers via email), and 3) contact of the teachers with information regarding informed consent and the surveys. The data was collected *in person by the researcher*, at both data collection points, for both treatment and control groups.

## Summary of the Results

### Research Question 1: Middle School Teachers' Reported Self-Perceptions

What are middle school teachers' reported self-perceptions of the following:

- c) Knowledge about identification, prevention, and intervention strategies for relational aggression, as measured by the adapted TISK;
- d) Frequency in using identification, prevention, and intervention strategies for relational aggression among their own students as measured by the adapted TISK;
- e) Confidence in identifying, preventing, and intervening in relational aggression among their students, as measured by the Confidence Scale.

**Results.** Overall, results for Research Question 1 indicate fairly high knowledge of relational aggression and frequency of use of tactics regarding relational aggression at the first data collection point, but a lack of confidence regarding teachers' efforts. In general, teachers rated themselves quite favorably on all measures related to knowledge, and this led to an overall knowledge score (knowledge-total) nearing "very familiar". Additionally, teachers rated themselves favorably on total frequency of use, though one of the frequency categories – frequency of use-identification – fell below the scale's midpoint, indicating a slightly unfavorable rating. Regarding the final category of variables (confidence) teachers indicated a general *lack of confidence*, particularly regarding Intervention.

**Knowledge variables (Identification, Prevention, Intervention, and Total).** Knowledge-identification items were given slightly lower – though still moderately favorable – ratings than the other knowledge variables. The favorable scores for all knowledge variables in the pretest indicates that, going into the study, the teachers had at least some familiarity with identification, prevention, and intervention of relational aggression, even if they did not identify it specifically

as relational aggression. In comments from the teachers during and following the pretest, teachers indicated that they were *unaware* of relational aggression's definition. Even still, they rated themselves quite high on the survey items. It is possible that teachers rated themselves high in these areas due to the connection of relational aggression to the larger concept of bullying. Familiarity with the terms and tactics regarding bullying and anti-bullying strategies potentially led to heightened scores for relational aggression at the onset of the study. This conclusion is supported by the scores for knowledge-prevention items, which were nearing the "very familiar" level. Despite the fact that teachers reported they had not attended previous trainings, workshops, or professional development on relational aggression, it was clear that prevention strategies for relational aggression are very similar to the strategies for prevention of general bullying. Thus, it makes sense that teachers scored themselves highly in this area.

Knowledge-intervention items were scored moderately high, though not as high as knowledge-prevention measures. This, too, makes sense as a good number of the intervention strategies for relational aggression mirror those for bullying intervention, particularly on the adapted TISK.

Overall, the total knowledge score is reflective of the three other categories' high scores. The middle school teachers scored their total knowledge as falling between "somewhat familiar" and "very familiar", indicating the teachers believe they are generally knowledgeable regarding identification, prevention, and intervention.

***Frequency of Use variables - Identification, Prevention, Intervention, Total.***

The middle school teachers rated their total frequency of use as falling between "sometimes" and "often", indicating that the teachers believe they *frequently* use the skills indicated on the Adapted TISK regarding identification, prevention, and intervention related to

relational aggression among their students. Comparing the three categories that make up total frequency of use (identification, prevention, intervention), frequency of use-identification was the weakest with teachers reporting they only “sometimes” use identification techniques within this category. Frequency of use-prevention and frequency of use-intervention were both above the scales mid-point, indicating a favorable self-rating (“sometimes” to “often”) for these categories.

**Confidence.** Overall, the middle school teachers rated themselves below average on the confidence scale. In Total Confidence, they were between points 2 and 3 on the 5-point scale. The survey item that related to intervention confidence was particularly low, which is, of course, a problem when it comes to the teachers actually stepping up to stop relational aggression when they encounter it. Given that the overall scoring of the confidence items was *below* the scales midpoint the teachers indicated their confidence in identifying, preventing, and intervening was markedly lower than their knowledge and frequency of use averages. In sum, regarding relational aggression, middle school teachers appear to have less confidence than they have knowledge and frequency of use of skills.

### **Research Question 2: Variables Related to Middle School Teachers’ Reported Self-Perceptions**

Do teacher demographic variables (Highest degree achieved, years of experience teaching, type of class/subject taught, gender, and race/ethnicity) relate to middle school teachers’ reported self-perceptions of the following:

- d) Knowledge about identification, prevention, and intervention strategies for relational aggression, as measured by the adapted TISK;

- e) Frequency in using identification, prevention, and intervention strategies for relational aggression among their own students, as measured by the adapted TISK;
- f) Confidence in identifying, preventing, and intervening in relational aggression among their students, as measured by the Confidence Scale.

**Results.** Statistically significant gender differences occurred in the area of total confidence. Gender was also linked (marginal significance) with frequency of use-identification and knowledge-identification. In each of these results, males rated themselves higher than did females. Males also rated themselves more favorably than females in virtually all other categories, though only those with statistical significance are reported here. In short, male teachers reported higher knowledge in identifying relational aggression, and total confidence in dealing with relational aggression issues among students than female teachers.

Subject Taught was linked (marginal significance) to Total Frequency of Use as well as Frequency of Use-Identification. In both cases regarding Subject Taught, teachers of “Other Classes” rated themselves higher than their “general education and core classes” counterparts. In short, “Other classes” teachers reported more knowledge of and use of identification, prevention, and intervention techniques regarding relational aggression than the “general education core classes” teachers.

No other demographic factors showed statistically significant differences among the sample.

### **Research Question 3: Differences Between Middle School Teachers’ Reported Self-Perceptions Post In-Service**

Is there a difference between middle school teachers who participate in a targeted in-service compared to teachers who do not participate in a targeted in-service *before the targeted*

*in-service, one week after the targeted in-service, and six-months post in-service* regarding reported self-perceptions of the following:

- d) Knowledge about identification, prevention, and intervention strategies for relational aggression, as measured by the adapted TISK;
- e) Frequency in using identification, prevention, and intervention strategies for relational aggression among their own students, as measured by the adapted TISK;
- f) Confidence in identifying, preventing, and intervening in relational aggression among their students, as measured by the Confidence Scale.

**Results.** For most categories, a significant increase in scores occurred from the initial data collection point to the second data collection point. Both the Treatment *and* the Control Group saw significant increases in several areas. On the surface, this suggests that merely being exposed to the terms and strategies of the survey resulted in increased scores. Additionally, there were a handful of variables that saw a significant increase for only the Treatment Group, as described below. This finding, of course, highlights the specific benefit of the training program that was provided to the Treatment Group. The most telling benefits of the training came with the significant increases in total knowledge and total confidence for *only* the Treatment Group's teachers.

**Knowledge-Intervention.** Participants in the study saw a statistically significant increase in knowledge-intervention scores from the pretest to the post-test. This was the case for both the Treatment *and* Control Groups. It should be noted that while both groups experienced a significant increase, the Treatment Group's initial score for knowledge-intervention was lower than the Control Group's initial score, and the Treatment Group's final score for knowledge-intervention was higher than the Control Group's final score.

**Knowledge-Identification.** Participants in the study saw a statistically significant increase in knowledge-identification scores from the pretest to the post-test. This was the case for both the Treatment *and* Control Groups. It should be noted that while both groups experienced a significant increase, the Treatment Group's initial score for knowledge-identification was lower than the Control Group's initial score, and the Treatment Group's final score for knowledge-identification was higher than the Control Group's final score.

**Total Knowledge.** Total knowledge was an area that showed the impact of the training session. The Treatment Group saw a significant increase in total knowledge scores from collection point 1 to collection point 2 while the Control Group saw no significant increase. Thus, the argument can be made that the training session had a significant effect on the teachers regarding total knowledge.

**Frequency of Use-Identification.** Participants in the study saw a statistically significant increase in frequency of use-identification scores from the pretest to the post-test. This was the case for both the Treatment *and* Control Groups.

**Frequency of Use-Intervention.** Frequency of use-intervention was an area that showed the impact of the training session. The Treatment Group saw a significant increase in frequency of use-intervention edge scores from collection point 1 to collection point 2 while the Control Group saw no significant increase. Thus, the argument can be made that the training session had a significant effect on the teachers regarding frequency of use-intervention.

**Total Frequency of Use.** Participants in the study saw a statistically significant increase in frequency of use-total scores from the pretest to the post-test. This was the case for both the Treatment *and* Control Groups.

**Total Confidence.** Total confidence was an area that showed the impact of the training session. The Treatment Group saw a significant increase in total confidence edge scores from collection point 1 to collection point 2 while the Control Group saw no significant increase. Thus, the argument can be made that the training session had a significant effect on the teachers regarding total confidence.

### **Discussion of the Results**

This section will provide a discussion of these and other results in the context of existing relational aggression literature. Specifically, this section will highlight consistency with the literature in regards to teachers' role in identifying, preventing, and intervening in relationally aggressive behaviors with students as well as the role gender plays in teachers' self-perceptions related to relational aggression. Similarly, this section will provide a discussion in regards to the longitudinal impact a targeted in-service training had a on teachers' knowledge, frequency of use, and confidence in identifying, preventing, and intervening in relational aggression.

#### **Teachers' Knowledge, Frequency of Use, and Confidence**

A first major purpose of the study was to better understand middle school teachers' self-reported (a) *knowledge* about identification, prevention, and intervention strategies for relational aggression; (b) *frequency* of using identification, prevention, and intervention strategies for relational aggression among their own students; and (c) *confidence* related to identifying, preventing, and intervening in relational aggression in their classroom. There appeared to be a gap in the literature related to what teachers know about relational aggression, what they perceive as their professional roles related to relational aggression among their students, and their confidence in identifying relational aggression and intervening (Faris & Felmlee, 2014; Page & Smith, 2012; Stauffer et al., 2012).

In the present study, at the initial data collection point, teachers reported high levels of total knowledge and total frequency of use, but generally *lacked* confidence. High levels of knowledge and use of anti-relational aggression strategies among middle school teachers should be seen as a positive, particularly since research has indicated that there is often an increase in relationally aggressive behaviors as students transition from elementary school into middle school (Banny et al; Letrende & Smith, 2011). However, low levels of confidence regarding knowledge and use of tactics are potentially troublesome, though perhaps not unexpected. Leadbetter (2010) highlighted that the non-physical nature of relational aggression makes it difficult for teachers to easily identify and intervene in relational aggression scenarios. Hazler, et al (2001, p. 135) succinctly illustrate the challenge facing the education system, “Teachers, counselors, administrators, and parents who interact with youth on a daily basis struggle with making moment-to-moment decisions on whether they are seeing children play, tease, harass, fight, or bully one another.” Given that the term “bully” is often misunderstood (Green et al., 2013) and inconsistently reported (AERA, 2013) it should have perhaps been expected that the teachers would lack confidence regarding relational aggression. Results from the first of survey were consistent with previous research stating teachers are less likely to intervene if they don’t feel they have the knowledge of skills to do so (Mishna et al., 2005; Page & Smith, 2012; Yoon & Kerber, 2003). It is noteworthy that the current study found that Knowledge-Identification and Frequency of Use-Identification were the weakest-scored items by the middle school teachers, suggesting teachers lack knowledge of what relational aggression is and how to identify it among their students.

Regarding identification shortcomings, results from this study support past research that also highlighted teachers lack knowledge of definitions, types, and strategies for identifying

relational aggression among their students (e.g., Elsaesser, Gorman-Smith, & Henry, 2013; Faris and Felmlee, 2014; Mishna, Scarcello, Pepler, & Wiener, 2005; Bradshaw, Waasdorp, O'Brennan, & Gulemetova, 2011). Weakness in identifying relational aggression indirectly impacts students' abilities to understand and deal with relational aggression, as teachers contribute to students' knowledge of social skills, building self-esteem, and learning effective problem-solving and coping strategies (Elsaesser et al., 2013; Yoon et al., 2004).

Despite the general lack of confidence and relatively low scores for a handful of dependent variables, teacher Knowledge and Frequency of Use variables were, by and large, favorably scored. These findings break away from past research, that typically has shown teachers are lacking in knowledge and strategies regarding relational aggression (e.g., Elsaesser, Gorman-Smith, & Henry, 2013; Faris and Felmlee, 2014; Mishna, Scarcello, Pepler, & Wiener, 2005; Bradshaw, Waasdorp, O'Brennan, & Gulemetova, 2011). It might be that relational aggression is, perhaps, getting more attention since these earlier studies and is therefore better understood by teachers. However, given the low levels of confidence, it is more likely that the high scores for knowledge and skills was due to the fact that many of the concepts and tactics regarding relational aggression are similar to those used for general bullying. Additionally, as with any study, there may have been some social desirability influence on some participants, who wished to be seen as knowledgeable and utilizing successful tactics to prevent bullying and relational aggression. Regardless, given the discrepancy between Knowledge and Frequency of Use results of this study compared to previous scholarship, future research is certainly warranted.

### **Teacher Demographic Factors**

A second purpose of the study was to evaluate the impact demographic factors (gender, race, subject taught, years of experience, and highest education level) have on teachers' self-

reported perceptions of their (a) *knowledge* about identification, prevention, and intervention strategies for relational aggression; (b) *frequency* of using identification, prevention, and intervention strategies for relational aggression among their own students; and (c) *confidence* related to identifying, preventing, and intervening in relational aggression in their classroom. Yoon and Kerber (2003) discussed how such information relates to and shapes teachers' responses to aggressive behaviors. Research has also indicated that it is important to understand how teachers' perceptions shape their responses toward relational aggression (e.g., Page & Smith, 2012; Stauffer, Heath, Coyne, & Ferrin, 2012).

**Gender.** In the current study, an important distinction occurred regarding gender. Results indicate males' self-perceptions of their knowledge, frequency of use, and confidence related to relational aggression is higher than their female counterparts. This is consistent with other literature that has reviewed the impact of self-perceived confidence and gender on teaching wherein females tend to have lower confidence in their abilities (Colbeck, Cabrera, and Terenzini, 2000).

**Subject Taught.** It is also noteworthy that the current study found "other classes" scored marginally higher than "general education classes" regarding total frequency of use as well as frequency of use-identification. This finding suggesting teachers who do not teach core classes (math, English, history/social studies, science) more frequently use prevention, intervention, and identification techniques in regards to relational aggression.

**Years Taught.** The results of this study indicate that the number of years taught *did not* have an impact on teachers' knowledge, frequency of use, and confidence regarding relational aggression. This finding directly conflicts with past research, which found that years taught linked with greater confidence in *identifying* relational aggression (Goryl et al., 2013).

## **Longitudinal Impact of Targeted In-Service Training**

The final purpose of this study was to investigate the effects of a comprehensive relational aggression in-service training on the following variables: (a) teachers' knowledge about identification, prevention, and intervention strategies for relational aggression; (b) frequency of using identification, prevention, and intervention strategies with their students relational aggression; and (c) confidence related to identifying, preventing, and intervening in relational aggression in their classroom. Often, teachers do not always have the necessary or extensive training needed to identify and intervene in bullying situations in the school environment (Bradshaw et al., 2011; Merrell et al., 2006; Mishna et al, 2005; Yoon et al., 2004). Additionally, relational aggression is often seen by teachers and other school staff as part of the developmental process (Page & Smith, 2012), even though the literature indicated it can be just as harmful, and, at times, even more harmful than overt forms of aggression due to the fact it can go undetected and unreported (Crozier & Skliopidou, 2002; Young et al, 2010).

In the current study, Total Confidence increased for teachers who participated in the targeted in-service training on relational aggression while there was no effect on Total Confidence for the control group, suggesting the teachers who participated in the targeted in-service training *gained* more confidence in their ability to identify, prevent, and intervene on relationally aggressive behaviors among students. This supports past research that found a significant increase in confidence due to a training program designed specifically for anti-bullying strategies (Bowllan, 2011; Olweus et al., 2002).

Total Knowledge scores was another area that increased for the Treatment Group but not the Control Group. This, again, shows the impact of the training session. The Bully Buster training program, which served as a guide in the design of the training in this study, has

repeatedly been shown to positively impact teacher's knowledge, skills, and sense of efficacy (Newman et al., 2000; Orpinas et al., 2003; Van Overbenke Brooks, 2004). This study supports those findings, particularly in the area of Total Knowledge and Total Confidence.

### **Limitations of the Study**

This study contained several elements that served as potential limitations. These limitations involved the sample and the instruments and pertain to generalizability, a potentially low response rate, and instrumentation. Regarding the sample, the population of interest (middle school teachers in southeastern United States) was couched in a particular culture. It is possible that other cultures would have a slightly or greatly different view of bullying and relational aggression. Due to the limited nature of the sample, the results of the study may not be generalizable to different regions, cultures, grade levels, or schools.

Secondly, regarding the sample, it is possible that teachers or schools within the study will have varying experiences, training, and other influences that may inform their knowledge, frequency of use, and confidence in identification, prevention, and intervention regarding relational aggression. These potential confounds are accounted for to the extent possible through collection of demographic information, use of the pre-test-post-test design, and the random assignment of participants into treatment and control groups.

Third, teachers in this study were busy professionals and it seemed that some had difficulty completing 1-week follow-up survey and the 3-month follow-up survey. Teachers reported an inability to complete the survey within the given time (typically several days between survey drop-off and pick-up). Additionally, administrators and staff also noted challenges related to the academic schedule and completion of the surveys. The teachers' busy

schedules became most problematic for the 1-week follow-up survey, which had a markedly lower response rate.

Fourth, due to the low response rate as well as insufficient demographic data, the 1-week follow-up survey was dropped from the study. The pretest and the 3-month follow-up surveys, however, both had a sufficient response rate and complete demographic data.

Fifth, the confidence scale was made up of three items. Though it was initially intended that each item would represent a standalone dependent variable, it was later decided that, due to validity concerns, the group of confidence items would combine to form a single variable, total confidence.

Sixth, surveys evaluated teacher self-reports related to their confidence and understanding in relational aggression in their classrooms. Thus, social desirability may have been a factor in responses.

A seventh limitation, regarding measurement, is that all measures and the teacher training used in this study were either adapted or newly created. Though a pilot test was included to assess validity and reliability of both the measures and the treatment, these items have not gone through the testing and replication that other, more-established measures have gone through.

Finally, regarding the procedures of the study, the three-month follow up assessment of teacher knowledge, frequency of use, and confidence in identification, prevention, and intervention of relational aggression may have been confounded by other events and experiences. Schools might have offered other trainings, teachers may have had impactful experiences dealing with bullies, schools may have experienced teacher turnover, and so on. These events and experiences may have had a great impact on the outcome of the three-month follow-up assessment.

## **Implications of the Study for Future Research**

Given the results of the present study, several considerations for future research must be addressed. First, the present research should be replicated in other settings, including schools and school districts with other demographic characteristics for both students and teachers. Additionally, future studies could include different grade levels (i.e. preschool, elementary, and high school), as well as teachers in training, administration and paraprofessionals.

The present study included only middle school teachers within a City and a County school district. Research has indicated that there is often an increase in relationally aggressive behaviors as students transition from elementary school into middle school (Banny et al; Letrende & Smith, 2011). Leadbetter (2010) noted students in middle school have heightened social skills. With the heightened social skills comes the issue of teachers being unable to detect relational aggression among a series of complex social interactions (Elsaesser et al., 2013; Leadbetter, 2010). Future research should both continue to examine teachers within this population, particularly with a larger sample size. As noted by Bowen (2016) and Gall, Gall, and Borg (2007), the larger the sample size, the smaller the standard error which is more likely to reveal an effect. In addition, the larger the sample, the more likely the scores on the measured variables are representative of the population scores (Gall et al., 2007). Future research might increase teacher recruitment through continuing education programs as well as undergraduate and graduate teaching programs.

The present study focused on relational aggression, a specific form of bullying. The term bullying is ubiquitous, therefore, creating confusion regarding specific subtypes and use of the term. In addition, the participants in the present study indicated some familiarity with social aggression and bullying but virtually no previous knowledge of the term relational aggression.

Future research and training regarding relational aggression should continue to emphasize definitions and terms associated with relational aggression. Often the literature discussed bullying in the broadest sense with little attention being paid to specific forms of bullying (e.g., Bradshaw et al., 2011; Bradshaw & Waasdorp, 2009; Espelage, Polanin, & Low, 2014; Green, Felix, Sharkey, Furlong, & Kras, 2013; Hoglund, Hosan, & Leadbetter, 2012; Lim & Ang, 2009; Menard & Grottpeter, 2011; Young, Boye, & Nelson, 2006).

Though the present study neared its goals regarding sample size, there were several obstacles for regarding recruitment and retention of participants. First, the present study cold-called school districts and principals as a first step to recruit teachers to obtain consent to contact the teachers within their schools. Future researchers would benefit from having already established a working relationship with the school districts in order to a more favorable response to the study. As previously stated, future research could focus on teachers within undergraduate and graduate education programs as a way to increase participation.

In addition, the present study was a three-month longitudinal study that had some difficulty with teacher retention due to teacher demands throughout a school day and year. Future researchers might better overcome these demands by aligning their projects with the academic schedule for a given school. Also, future research would benefit greatly from providing teachers with individual incentives for continued participation.

The present study focused on 12 dependent variables. Future research should attempt to focus on generating fewer, more distinct, outcomes for assessment. In addition, the Confidence scale in the present study consisted of only three items, therefore creating some concerns regarding the validity of that particular measure. Future research should expand of the Confidence Scale while also focusing on Confidence as a stand-alone variable. Future research

could also focus solely on knowledge or frequency of use in identifying, preventing, and intervening.

### **Implications of the Study for Applied Practices in Schools**

The present study provides several implications for professionals practicing in schools. To begin with, this study drew attention to the need to provide teachers with more training opportunities regarding identifying, preventing, and intervening in bullying related behaviors throughout the school year. This study found an increase in teachers' confidence three-months post-training as well as verbal feedback from teachers expressing interest in anti-bullying training programs. It would appear teachers feel they generally possess the knowledge and skills for addressing RA in the classroom *but they lack confidence* in implementing identification, prevention, and intervention strategies. Therefore, future trainings and strategies for teachers should focus on increasing confidence as well as providing definitions and specific types of the different forms of bullying.

Second, the present study revealed teachers' scores to be particularly low on an item regarding home-school collaboration as a method for relational aggression prevention and intervention. Future trainings should place a strong emphasis on the importance of home-school collaboration and teachers' role in providing families with information about relational aggression. Future research is needed to address the effectiveness of this form of anti-bullying prevention and intervention technique.

Finally, the present study also suggested teachers were unaware of district or school-wide anti-bullying policies or had a vague understanding of zero-tolerance. A particular focus for future research should be placed on establishing and maintaining an anti-bullying policy as a means to promote teacher knowledge, skills, and confidence in addressing all forms of bullying

behavior at the individual, classroom, and systems level. In addition, home-school collaboration should focus on students, parents, and guardians understanding of the policy established by the district or school. Continued study in this area might offer important considerations for the impact of a well established and understood anti-bullying policy could at an individual, classroom, and systems level.

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## APPENDIX A

### ADAPTED TASK DEVELOPED AND USED IN DISSERTATION STUDY

**Labels are provided alongside the items below to indicate which variable serves as basis for the item; these were not on actual survey for the study. Labels are “ID”=identification, “PRE”=prevention, “INT”=intervention.**

**Note – Items were randomly reordered for second and third survey points.**

In the following section, please circle the response that most closely reflects your *familiarity* with strategies or concepts listed.

To answer, please use the following scale:

**U = Unfamiliar      S = Somewhat familiar      V = Very familiar**

Remember that you are providing your familiarity with the concepts or ideas below.	Familiarity Level
1. The zero-tolerance policy use and requirements. PRE	U S V
2. The effects of modeling positive social skills as a way to combat relational aggression. INT	U S V
3. The benefits of teacher support teams as a resource for consultation and support for relational aggression problems. PRE	U S V
4. The effects of consequences for undesirable acts/misbehavior committed by students. INT	U S V
5. Reinforcing non-aggressive behaviors (e.g., on-task behavior, helping behavior, assertive/nonaggressive behaviors). INT	U S V
6. The student benefits of teaching positive social skills for entering groups, conversations, and other social activities. INT	U S V
7. The value in teaching steps of positive problem solving and decision-making as a means to combat relational aggression. INT	U S V
8. The benefits of teaching confidence and self-esteem building skills to all students. PRE	U S V
9. The benefits of highlighting strengths of all students (help students become aware of their strengths). PRE	U S V
10. The “Four R’s” of bully control: Recognize, Remove, Review, Respond. INT	U S V
11. The effects of encouraging students to understand the other’s point of view (develop an empathetic understanding) with regard to relational aggression. INT	U S V
12. The value of having open discussions with aggressors and victim. INT	U S V
13. The value of rewards for improvements (successive approximations of desired behavior as opposed to relational aggression). INT	U S V
14. The effects of coping skills for dealing with relational aggression. INT	U S V

15. The effects of providing support for all students (create an “open door” policy). INT	U	S	V
16. The types and behaviors of relational aggression. ID	U	S	V
17. The functions of relationally aggressive behavior. ID	U	S	V
18. The benefits of reinforcing behavior, not the child (e.g., “Bob, I am proud of you for _____”). INT	U	S	V
19. The effects of praise and attention to reinforce good behaviors and accomplishments. PRE	U	S	V
20. The lasting effects of relational aggression victimization. ID	U	S	V
21. The value of following up on relationally aggressive incidents. INT	U	S	V
22. The benefit of establishing and implementing classroom rules and a code of conduct that includes relational aggression. PRE	U	S	V
23. The importance of modeling decision-making, respect for others, and a positive attitude as a means to combat relational aggression. PRE	U	S	V
24. The value of creating opportunities for student success in terms of positive social interaction. PRE	U	S	V
25. Defusing relationally aggressive situations in the classroom immediately. ID	U	S	V
26. Making a referral to counselor regarding relational aggression. ID	U	S	V
27. Consulting with school counselor, school psychologist, or other professional with regard to relationally aggressive behaviors. ID	U	S	V
28. The effects of implementing classroom activities to increase awareness of aggressive behaviors/victimization. ID	U	S	V
29. Using group problem solving for and with other teachers. PRE	U	S	V
30. Making a disciplinary referral regarding relational aggression. ID	U	S	V
31. The value of contacting parents regarding a student’s social misbehavior via phone call, letter, conference. ID	U	S	V
32. The value of contacting parents regarding positive social	U	S	V

behavior of all students. PRE	
33. The benefits of when teacher/school provides workshops, seminars, and other opportunities for parents to seek new information and skills about relational aggression. PRE	U S V
34. The value of developing a special relationship with each child. PRE	U S V
35. The benefits of believing that you can successfully bring about a desired outcome in ALL students (teacher self-efficacy). PRE	U S V
36. Identifying relational aggression behavior among students ID	U S V
37. Explaining relational aggression Definition to students, parents, and/or colleagues. ID	U S V
38. Explaining the different <i>types</i> of Relational Aggression to students, parents, and/or colleagues. ID	U S V

(The categories provided below will not be listed on the actual survey)

Categories→

Identification (12 items): 16, 17, 20, 25, 26, 27, 28, 30, 31, 36, 37, 38

Prevention (13 items): 1, 3, 8, 9, 19, 22, 23, 24, 29, 32, 33, 34, 35

Intervention (13 items): 2, 4, 5, 6, 7, 10, 11, 12, 13, 14, 15, 18, 21

Total (38 items)

In the following section, please circle the response that most closely reflects *how frequently* you use skills associated with identification, prevention, and intervention of relational aggression.

To answer these questions, use the following scale:

**N = Never**

**S = Sometimes**

**O = Often**

**Labels are provided alongside the items below to indicate which variable serves as basis for the item; these *were removed* on actual study. Labels are “ID”=identification, “PRE”=prevention, “INT”=intervention**

**Note – Items were randomly reordered for second and third survey points.**

Remember that you are indicating how <i>frequently</i> you perform or encounter the concepts or ideas below.	Use
1. Enforce the zero-tolerance policy: “No bullying behaviors of ANY form.” PRE	N S O
2. Teach and model positive social skills. INT	N S O
3. Use teacher support team as a resource for consultation and support for relational aggression problems. PRE	N S O
4. Use consequences for undesirable acts/misbehavior committed by students. INT	N S O
5. Reinforce non-aggressive behaviors (e.g., on-task behavior, helping behavior, assertive/nonaggressive behaviors). INT	N S O
6. Teach positive social skills for entering groups, conversations, and other social activities. INT	N S O
7. Teach steps of positive problem solving and decision-making. INT	N S O
8. Teach confidence and self-esteem building skills to all students. PRE	N S O
9. Highlight strengths of all students (help students become aware of their strengths). PRE	N S O
10. Use the “Four R’s” of bully control: Recognize, Remove, Review, Respond. INT	N S O
11. Encourage students to understand the other’s point of view (develop an empathetic understanding). INT	N S O
12. Conduct open discussions with aggressors and victim. INT	N S O
13. Reward for improvements (successive approximations of desired behavior). INT	N S O
14. Teach coping skills to students. INT	N S O
15. Provide support for all students (create an “open door” policy. INT	N S O
16. Teach students to recognize and identify the types and	N S O

behaviors of relational aggression. ID	
17. Teach students to recognize and identify the traits and functions of relationally aggressive behavior. ID	N S O
18. Reinforce behavior, not the child (e.g., “Bob, I am proud of you for _____”). INT	N S O
19. Use praise and attention to reinforce good behaviors and accomplishments. PRE	N S O
20. Teach all students the lasting effects of victimization. ID	N S O
21. Conduct follow-up on relationally aggressive incidents. INT	N S O
22. Establish and implement classroom rules and a code of conduct. PRE	N S O
23. Model decision-making, respect for others, and a positive attitude. PRE	N S O
24. Create opportunities for student success. PRE	N S O
25. Defuse relational aggressive situations in the classroom immediately. ID	N S O
26. Make a referral to counselor. ID	N S O
27. Consult with school counselor, school psychologist, or other professional. ID	N S O
28. Implement classroom activities to increase awareness of aggressive behaviors/victimization. ID	N S O
29. Use group problem solving for and with other teachers. PRE	N S O
30. Make a disciplinary referral. ID	N S O
31. Contact parents regarding student misbehavior via phone call, letter, conference. ID	N S O
32. Contact parents regarding positive behavior of all students. PRE	N S O
33. Teacher/school provides workshops, seminars, and other opportunities for parents to seek new information and skills. PRE	N S O
34. Develop a special relationship with each child. PRE	N S O
35. Believe that you can successfully bring about a desired outcome in ALL students (teacher self-efficacy). PRE	N S O

36. Identify Relational Aggression behavior among students ID	N	S	O
37. Explain Relational Aggression Definition to students, parents, and/or colleagues. ID	N	S	O
38. Explain the different <i>types</i> of Relational Aggression to students, parents, and/or colleagues. ID	N	S	O

(The categories provided below will not be listed on the actual survey)

Categories→

Identification (12 items): 16, 17, 20, 25, 26, 27, 28, 30, 31, 36, 37, 38

Prevention (13 items): 1, 3, 8, 9, 19, 22, 23, 24, 29, 32, 33, 34, 35

Intervention (13 items): 2, 4, 5, 6, 7, 10, 11, 12, 13, 14, 15, 18, 21

Total (38 items)

Please list any previous teacher trainings on **relational aggression**

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### Confidence Scale

For the following questions, please indicate your level of confidence.

1) How confident do you feel in *identifying* a relational aggression incident?

1-not at all confident; 2-somewhat confident; 3-not sure; 4-confident; 5-very confident

2) If you witnessed a relational aggression act, how confident would you be in *intervening*?

1-not at all confident; 2-somewhat confident; 3-not sure; 4-confident; 5-very confident

3) How confident do you feel in *implementing* prevention strategies related to relational aggression?

1-not at all confident; 2-somewhat confident; 3-not sure; 4-confident; 5 very confident

APPENDIX B

ORIGINAL TISK DEVELOPED BY HORNE, BAROLOMUCCI, & NEWMAN-CARLSON

Teacher Inventory of Skills and Knowledge (TISK)

Horne, Bartolomucci, & Newman-Carlson, 2000

ORIGINAL

How many times have you completed the TISK?

0    1    2    3    4    5    6    7    8    9    10

The following questions concern your knowledge of various interventions for bullies and victims and how often you use certain techniques and resources. Please complete every item by circling the response that most closely reflects (a) your *knowledge* of the intervention and (b) your *use* of the intervention. Blank spaces are provided at the end of the questionnaire for you to list other strategies and resources you have used. *Note:* Items marked with an asterisk (\*) are common to teacher training and not unique to a bully prevention program.

Knowledge of Intervention	U = Unfamiliar	S = Somewhat familiar	V = Very familiar
Use of Intervention	N = Never	S = Sometimes	O = Often

	Knowledge	Use
1. Establish a zero-tolerance policy: “No bullying.”	U S V	N S O
2. Teach victims social skills (e.g. self-presentation, nonvictim body language, skills to deal with conflicts)	U S V	N S O
*3. Teach victims physical and verbal assertiveness skills (e.g., assertive words, posture, eye contact).	U S V	N S O
*4. Use peer meditation (train team of students to help bully and victim work out an agreement).	U S V	N S O
5. Use teacher support team as a resource for consultation and support for bullying problems.	U S V	N S O
*6. Use student support team as a resource for consultation and support for bullying problems.	U S V	N S O
7. Use consequences for undesirable acts/misbehavior committed by bullies.	U S V	N S O
8. Reinforce nonbullying behaviors (e.g., on-task behavior, helping behavior, assertive/nonaggressive behaviors).	U S V	N S O
9. Teach social skills for entering groups, conversations, and other social activities.	U S V	N S O
10. Teach steps of problem solving and decision making for behavior problems.	U S V	N S O
*11. Assist victims of bullying in identifying skills and behaviors they may want to learn.	U S V	N S O
12. Teach confidence and self-esteem building skills to victims	U S V	N S O
13. Highlight strengths of victim and bully (help students become aware of their strengths).	U S V	N S O
14. Use the “Four R’s” of bully control: Recognize, Remove, Review, Respond	U S V	N S O

*15. Instill an attitude of hope and encouragement in bullies and victims.	U S V	N S O
16. Encourage bullies to understand the victim's point of view (help bullies develop an empathetic understanding of victims).	U S V	N S O
17. Conduct open discussions with bully and victim.	U S V	N S O
*18. Teach bullies to list and prioritize behaviors that need to be changed.	U S V	N S O
*19. Use written contracts with bullies.	U S V	N S O
*20. Use written contracts with victims.	U S V	N S O
21. Reward for improvements (successive approximations of desired behavior).	U S V	N S O
*22. Teach bullies nonaggressive and nonbullying behavioral alternatives.	U S V	N S O
23. Teach coping skills to victims.	U S V	N S O
24. Provide support for victims (create an "open door" policy).	U S V	N S O
*25. Teach bullies a better way of thinking (to shift from aggressive-based appraisals to assertive-based ones).	U S V	N S O
26. Teach students to recognize and identify the characteristics and behaviors of different types of bullies.	U S V	N S O
27. Teach students to recognize and identify the characteristics and behaviors of different types of victims.	U S V	N S O
*28. Use an invitational approach (encourage bully and victim to share their perspectives).	U S V	N S O
29. Reinforce behavior, not the child (e.g., "Bob, I am proud of you for _____").	U S V	N S O

30. Use praise and attention to reinforce good behaviors and accomplishments.	U S V	N S O
*31. Use the techniques of overcorrection with bullies.	U S V	N S O
*32. Use loss of privileges with bullies.	U S V	N S O
33. Teach all students the last effects of victimization.	U S V	N S O
*34. Use role-plays and role reversal to teach bullies what it feels like to be the victim.	U S V	N S O
35. Conduct follow-up on bullying incidents.	U S V	N S O
*36. Use the empty chair exercise to help students understand the behaviors, thoughts, and feelings of the bully and victim.	U S V	N S O
37. Establish and implement classroom rules and a code of conduct.	U S V	N S O
38. Model decision-making, respect for others, and a positive attitude.	U S V	N S O
*39. Use cooperative learning with bullies and victims (incorporate group projects/team approach into your curriculum).	U S V	N S O
*40. Teach bullies and victims verbal and nonverbal communication skills.	U S V	N S O
*41. Teach collaborative conflict resolution skills to bullies and victims (teach bullies and victims to become responsible for finding their own solutions through negotiation).	U S V	N S O
42. Create opportunities for student success.	U S V	N S O
*43. Implement a buddy system (pair reliable student with incoming student).	U S V	N S O
44. Defuse bullying situations in the classroom immediately and address the issue with the bully after	U S V	N S O

class, privately.		
*45. Teach anger management strategies to bullies.	U S V	N S O
*46. Teach relaxation techniques to bullies and victims.	U S V	N S O
*47. Teach self-calming techniques to bullies.	U S V	N S O
*48. Teach victims to find their “safe vacation place.”	U S V	N S O
49. Make a referral to counselor.	U S V	N S O
50. Consult with school counselor, school psychologist, or other professional.	U S V	N S O
*51. Verbally correct/reprimand the bully individually to avoid reinforcing attention-seeking behavior.	U S V	N S O
52. Implement classroom activities to increase awareness of bullying/victimization.	U S V	N S O
*53. Implement classroom activities aimed at bully prevention.	U S V	N S O
54. Use group problem solving for and with other teachers.	U S V	N S O
*55. Have students keep a log of the incidents of bullying/victimization they witness.	U S V	N S O
56. Make a disciplinary referral.	U S V	N S O
57. Contact parents regarding student misbehavior via phone call, letter, conference.	U S V	N S O
58. Contact parents regarding positive behavior of all students.	U S V	N S O
59. Teacher/school provides workshops, seminars, and other opportunities for parents to seek new information and skills.	U S V	N S O
*60. Consult with another teacher for advice.	U S V	N S O

*61. Use behavior log (record bullying incidents and interventions).	U S V	N S O
*62. Use a consistent signal to indicate that the day's lesson is commencing.	U S V	N S O
63. Develop a special relationship with each child.	U S V	N S O
64. Believe that you can successfully bring about a desired outcome in your students (teacher self-efficacy).	U S V	N S O

\*Highlighted items denote which items were removed for the adapted survey.

## APPENDIX C

### LETTER OF PERMISSION FOR ADAPTED TISK FROM PUBLISHER

**PERMISSION IS GRANTED TO:**

**DATE:** January 29, 2015

Jamie Farquhar  
University of Alabama  
via email: [jfarquhar@crimson.ua.edu](mailto:jfarquhar@crimson.ua.edu)

**FOR THE USE OF:**

The TISK (Teacher Inventory of Skills and Knowledge) pp. 237-240, *Bully Busters: A Teacher's Manual for Helping Bullies, Victims and Bystanders*, for adapting to use in a doctoral research study.

**ON THE FOLLOWING CONDITIONS:**

1. Changes may be made for adapting the instrument for use in the study only and not distributed to others.
2. The material appearing in our publication has not been reprinted or adapted from another source.
3. The work in which the material appears will not be sold or used in any way to generate profit.
4. Full credit will be provided to the source in the form of a source note on a credits page or on the page(s) on which the material first appears. This source note should take the following form:  
  
*Bully Busters: A Teacher's Manual for Helping Bullies, Victims and Bystanders*, by Dawn A. Newman, Arthur M. Horne, and Christi L. Bartolomucci. Champaign, IL: Research Press, 2000. Adapted by permission of Research Press.
5. Other: No fee.

  
Judy Parkinson  
Research Press  
2612 N. Mattis Ave.  
Champaign, IL 61822  
800-519-2707  
[jparkinson@researchpress.com](mailto:jparkinson@researchpress.com)

[www.researchpress.com](http://www.researchpress.com)

APPENDIX D

DEMOGRAPHIC QUESTIONNAIRE

Please indicate your gender

- Male
- Female

Please indicate your race

- American Indian/Alaska Native
- Asian
- Black/African American
- Hispanic/Latino/Spanish origin
- Native Hawaiian/Other Pacific Islander.
- White/Caucasian

In which subject(s) do you primarily teach?

- Art
- English
- Computer Science
- History/Social Studies
- Math
- Music
- Physical Education
- Science
- Special Education
- Other \_\_\_\_\_

How many years have you been a teacher?

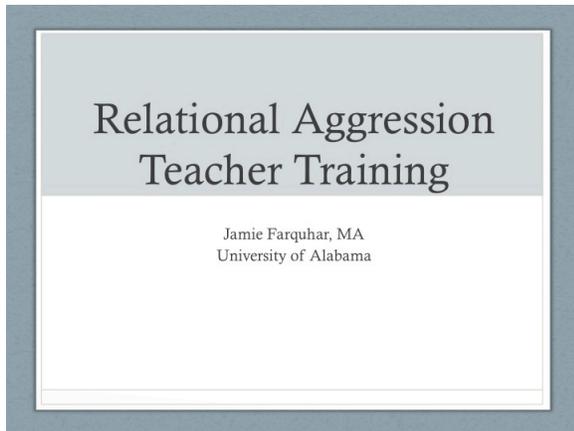
- Less than 2 years
- 2-5 years
- 6-10 years
- 11-15 years
- More than 15 years

What is the highest level of education you have achieved?

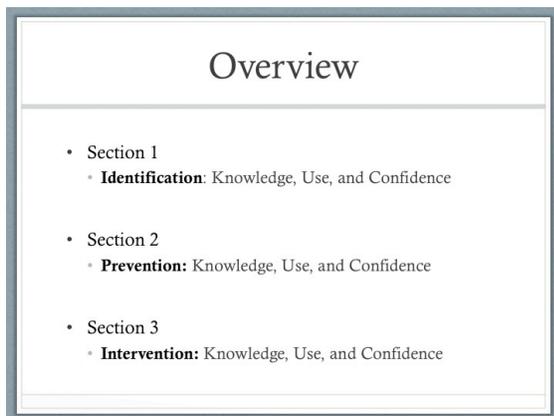
- Bachelor's Degree
- Master's Degree
- EdS degree or specialist level
- Ph.D. Degree

## APPENDIX E

### TEACHER TRAINING SLIDES AND SCRIPT



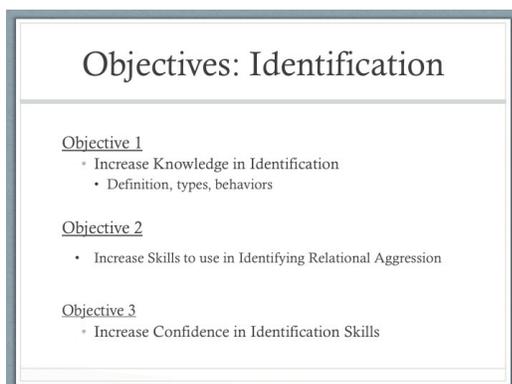
Good morning. My name is Jamie Farquhar and I'm a doctoral student in School Psychology at the University of Alabama. This is a training regarding relational aggression focused on knowledge, use of prevention and intervention skills, as well as confidence for middle school teachers.



This 60-minute presentation will be broken into three sections. First, we'll discuss **Identification** with particular emphasis on Knowledge, Use, and Confidence

Next, we'll move into **Prevention**, with focus placed on Knowledge, Use, and Confidence in prevention strategies and tactics.

Lastly, we'll discuss **Intervention**, with emphasis on Knowledge, Use, and Confidence in intervention strategies and tactics. Throughout the program, to help facilitate conversation, I'll ask you to fill out portions of the worksheet that you have been provided. Again, this presentation is divided into three main sections. For our first section, Identification, we have the following objectives. First, increase teachers' *knowledge* of relational aggression, its types, and common behaviors. Second, increase teachers' *skills* and ability to identify relational aggression and its effects. And, lastly, increase teachers' confidence in recognizing, understanding, identifying relational aggression.



## Identification

- Activity: Write down a description of a “bully” from your past
- Activity: Write down a description of a “bully” in your classroom.
- What is Bullying?
- What is Relational Aggression?

Before we get into specifics of relational aggression, let’s first discuss what bullying behavior looks like. If you could, please write down a description or traits of a bully from your past. Then write down a description of a bully you have had in your classroom. (pause for writing time). There is a place on your worksheet for this answer. Take the next minute to think of your description and write it down.

OK. Now, would anyone be willing to share their descriptions. (Continue for a few more volunteers).

Now, let’s discuss “what bullying is”. Bullying, according to the APA and StopBullying.Gov is a *repeated or potentially repeated, unwanted, aggressive behavior that involves real or perceived power imbalance.*

So, how does relational aggression fit into this understanding of bullying? Relational aggression is a *form* of bullying. Relational aggression, according to Crick and Grotpeter, is most often used to manipulate social relationships, achieve personal goals, and/or obtain revenge for a perceived wrongdoing. It is a non-physical form of aggression and is sometimes called indirect or social aggression.

## Identification

- Types of Relational Aggression
  - Reactive: response to feelings of anger or being wronged
  - Instrumental: goal-directed in order to gain some form of personal gratification

There are two types of relational aggression: reactive and instrumental. Reactive relational aggression typically results from a perceived threat or provocation from another individual. The act is justified in the aggressor’s mind due to feelings of anger or being wronged.

Instrumental relational aggression is goal-directed in order to gain some form of personal gratification. This form of relational aggression can include indirect and direct forms of relational aggression such as excluding individuals or making threatening comments.

## Identification

- Common Relational Aggression Behaviors
  - Exclusion from groups and activities
  - Social isolation
  - Rumors and Gossip
  - Name-calling
  - Social Intimidation
- Activity: Discuss other types of relational aggression behavior observed or reported.

Now let's discuss the common behaviors associated with relational aggression. These include Exclusion from groups and activities, Social isolation, Rumors, Gossip, Name-calling, and social intimidation. Some forms of cyber-bullying can be considered relational aggression, but other forms, such as threats of violence, move outside relational aggression boundaries.

Please take the next minute to identify other behaviors that you have observed or have been reported to you by students.

OK... now who would be willing to share what they wrote down?

## Identification

- Relational Aggression Statistics
  - Gender
    - Not just a "female problem"
  - Groups
    - Typically occurs WITHIN social groups
    - Social elite or "popular"
  - Age
    - Typically observed in preschool-aged students
    - Skills become refined over time and with maturity
      - Peak in middle school

Here's a look at some common factors that might help shape our discussion of relational aggression. In terms of Gender... Girls, more so than boys, tend toward verbal assaults, being mean behind the backs of friends, and hold grudges. Further, research has shown that girls tend to have a higher level of emotional involvement in their relationships, and therefore their engagement in relational aggression is more prominent in school than boys' involvement. Some research, however, do not show a strong gender difference.

In terms of social groups, relational aggression typically occurs *within* a particular group as opposed to one group relationally aggressing against another group. Often the Socially elite or "popular" group has high levels of relational aggression within it... perhaps due to the heightened value of social status within that group.

Lastly, in terms of age, relationally aggressive behaviors are often first seen in preschool aged students, but the skills of manipulation related to relational aggression mature as the child matures. Relational aggression increases rapidly during the transition from elementary school to middle school and often peaks during the middle school years when peer acceptance and rejection become more powerful forces.

Identification	
Traits	Function
<ul style="list-style-type: none"> <li>• Common for teachers, as well as students, to have difficulty identifying relationally aggressive behaviors</li> <li>• Aggressors are often viewed as "friend" of victim</li> <li>• Socially skillful</li> <li>• Peer Involvement</li> </ul>	<ul style="list-style-type: none"> <li>• Social Dominance</li> <li>• Acceptance</li> <li>• Obtaining desirable status</li> <li>• Cause harm               <ul style="list-style-type: none"> <li>• Psychological</li> <li>• Emotional</li> </ul> </li> </ul>

Research has also shown that there are many ways that relational aggression can be used and that it is often ambiguous and inconspicuous. Relational aggression is maintained and promoted through peer support, social status, and reaching social goals. Research suggests that the motivation behind relationally aggressive behavior is often social dominance (i.e., power, social isolation of peers). Other functions of relational aggression include gaining acceptance or objects of desire, as well as enacting psychological and emotional harm to others.

Identification	
Consequences and Effects Aggressor	Consequences and Effects Victim
<ul style="list-style-type: none"> <li>• Externalizing               <ul style="list-style-type: none"> <li>• Fights</li> </ul> </li> <li>• Internalizing               <ul style="list-style-type: none"> <li>• Psychosocial maladjustment</li> </ul> </li> <li>• Social               <ul style="list-style-type: none"> <li>• Peer Rejection</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Externalizing               <ul style="list-style-type: none"> <li>• Retaliation</li> </ul> </li> <li>• Internalizing               <ul style="list-style-type: none"> <li>• Depression/loneliness</li> <li>• Suicidal Ideation</li> </ul> </li> <li>• Social               <ul style="list-style-type: none"> <li>• Isolation</li> <li>• Peer Rejection</li> </ul> </li> </ul>

Consequences and effects for the aggressor are the following:

Externalizing => Fights

Internalizing => Psychosocial maladjustment

Social => Peer Rejection

Consequences and effects for the victim include the following:

Externalizing => Retaliation

Internalizing => Depression/loneliness

Suicidal Ideation

Social +> Isolation + Peer Rejection

Identification
<ul style="list-style-type: none"> <li>• Teacher Statistics and Testimonials               <ul style="list-style-type: none"> <li>• Why is it important/needed?                   <ul style="list-style-type: none"> <li>• Covert, sometimes invisible behavior</li> </ul> </li> <li>• Teachers' knowledge, attitudes, and behaviors                   <ul style="list-style-type: none"> <li>• Part of development → Is it bullying?</li> <li>• First line of defense → must be aware</li> </ul> </li> <li>• Training, training, training                   <ul style="list-style-type: none"> <li>• NEA (2011) need more training!</li> </ul> </li> </ul> </li> </ul>

All of the above, for both aggressor and victim, can lead to academic struggles tied to inattention, acting-out behaviors, absenteeism, and low performance. In some cases, the victim escalates to the extent that he or she *becomes* the bully.

“Teachers’ knowledge, attitudes, and behaviors appear to be particularly important for observing and limiting relational aggression in school settings”.

Though it peaks in middle school years, research has indicated that this age group is more open to responding to interventions. Students at this age continue to require proactive assistance from adults when coping with peer acceptance issues and developing positive social skills. Scholars, however, have noted that teachers may be unaware of the relationally aggressive behaviors due to perpetrators often being popular and socially powerful among their peers.

## Objectives: Prevention

---

Objective 1

- Increase Knowledge of Prevention Methods

Objective 2

- Increase Prevention Skills to use against Relational Aggression

Objective 3

- Increase Confidence in Prevention Strategies and Skills

OK. That concludes our section on Identification of relational aggressions. Now, we move on to Prevention. We also have three objectives to this section.

Objective 1

- Increase Knowledge of Prevention Methods

Objective 2

- Increase Prevention Skills to use against Relational Aggression

Objective 3

- Increase Confidence in Prevention Strategies and Skills

## Prevention

---

- Issues → Why isn't it working?
  - Lack of support for prevention programs
    - Reactive approach instead of proactive
      - "Parent Problems" not teacher's job
      - Assumption that it "isn't that big" of a problem
  - Beliefs of Relational Aggression
    - Everyone goes through it → grow out of it
    - "Mean girl" syndrome
    - Consequences are not long lasting

First, in discussing prevention, we need to examine some common barriers to successful prevention efforts. School system often do not address relational aggression specifically within their anti-bullying policy, which leads to confusion and inconsistencies regarding reporting of behaviors. Second, schools and teachers often focus on *intervention* rather than prevention. Next, beliefs of relational aggression, among many teachers and administrators, are simply that "everyone goes through it... and eventually grow out of it. Also, it is often seen as a mean girl syndrome, despite several studies that have indicated that relational aggression impacts both boys and girls. Lastly, relational aggression prevention is potentially seen as ineffective and can be better addressed by parents.

## Prevention

- Characteristics
  - School
    - School-wide approach to bullying/RA
      - Zero Tolerance
      - Full understanding and implementation by all
    - Continued training
    - Response team

In terms of effective prevention programs, there are some characteristics important for schools to consider. First, implementing a school-wide approach is far more effective than having variance among classrooms within a school. As we discussed earlier, relational aggression is commonly left out of the anti-bullying policies. Next, research has shown that zero-tolerance is currently not working for relational aggression. This could be because not all forms of bullying are being addressed. Zero tolerance means that no bullying, in any form, will be tolerated. In order for Zero tolerance to be an effective prevention technique, *all forms* of bullying – including relational aggression – must be reported and stopped.

Second, there is a need for continued training and discussion among faculty and administration.

Lastly, schools can aide in the prevention efforts by forming a team of individuals that have received heightened training in bullying and relational aggression behavior. This team can be used as a support for all.

## Prevention

- Characteristics
  - Teacher
    - Modeling
    - Teacher self-efficacy
    - Positive expectations
    - Presentation style
    - Student Relationship
  - Activity: Discuss examples that have been effective in your classroom.

In addition to school-based efforts, research also indicates some important teacher characteristics.

First, teachers are models for their students. Students look to their teachers as a guide for appropriate and inappropriate behaviors. This includes modeling of behaviors between teachers as well as between teachers and students.

Next, teacher self-efficacy is the internal belief that the teacher can successfully bring about desired outcomes in terms of social behaviors. This includes taking on a feeling of personal responsibility for their students' performances, both academically and socially.

Third, the teacher must have positive expectations regarding the students. Students are adept at reading adults' expectations, both good and bad. Expectations shape both the student's behaviors and the teacher's response.

Fourth, how a teacher presents him or herself to the students is important. Avoiding monotony, promoting eye-contact, and utilizing other actions that facilitate attention and classroom cohesion help prevent relationally aggressive behaviors.

Lastly, take time to develop a relationship with your students. Developing a special relationship with each child will increase trust and make them more likely to seek you out for help when problems arise.

Now, please take a minute to write down examples of tactics or strategies that have been effective in your classroom.

Who would like to share?

## Prevention

- Characteristics
  - Parent Involvement
    - Establish relationship
    - Maintain communication regarding positive *and* negative behaviors; emphasize positive
    - Importance of modeling at home
    - Importance of support for appropriate academic and social performance
    - Provide workshops and other training *for parents*
  - Activity: What are current methods used to facilitate parent involvement?

Lastly, there are some important characteristics regarding parental involvement when attempting to install a successful prevention program. These include, first and foremost, establishing a relationship with the parent or guardian. Next, the teacher and school should maintain communication regarding positive and negative behaviors, emphasizing the positive whenever they can. Third, parents and guardians need to be brought into the discussion regarding the importance of modeling, both at school and at home. Similarly, parents and guardians should show their support for appropriate academic and social performance. Lastly, the schools would be well-suited to provide workshops and other training for parents. Now please take a minute to write down methods that they've used to facilitate parent involvement? Who would be willing to share what they wrote?

## Prevention

- Affecting Change
  - Policy
  - Other school staff

Research shows that when there is a clear-cut policy that addresses specific bullying behaviors, teachers express more confidence in identifying aggressive behaviors.

When teachers and other school staff are presented with aggressive scenarios/vignettes, they almost always deem the physical, overt aggressive behaviors to be the most severe and harmful.

This concludes the second section of this presentation. Now we will move on to the final section of the presentation, focusing on intervention strategies and techniques

## Objectives: Intervention

- Objective 1
  - Increase Knowledge in Intervention Skills
- Objective 2
  - Increase Intervention Skills to use against Relational Aggression
- Objective 3
  - Increase Confidence in Intervention Strategies and Skills

Our final section focuses on Intervention, and we once again have 3 objectives. They are Objective 1

- Increase Knowledge in Intervention Skills

Objective 2

- Increase Intervention Skills to use against Relational Aggression

Objective 3

- Increase Confidence in Intervention Strategies and Skills

## Intervention

- General Strategies and Skills
  - Positive Environment
  - Establish and enforce classroom rules
  - Act quickly, build confidence with students
  - Use positive interpersonal skills with ALL students
  - Examine OWN responses to relationally aggressive behavior
  - Provide students with alternatives out of conflict/confrontations
  - Let students know they are important and worth it
  - Empower students against all aggressive behaviors

### General Strategies

*Positive Environment* – is partly about physical place, but also about setting up positive relationships with students. Promoting positivity.

*Establish and enforce classroom rules* – Include the students on establishing rules that involve relationally aggressive behaviors (i.e. – gossiping, exclusion). Then be consistent in enforcing those rules.

*Act quickly, build confidence with students* – Again, ignoring or slow action is often seen as being accepting of the behaviors. If you see it, intervene. If you hear about it, intervene.

*Use positive interpersonal skills with ALL students* – Again, consistency and fairness to all.

*Examine OWN responses to bullying* – Are you confident? Do you know the policies? Be responsive to both victim and aggressor.

*Provide students with alternatives out of conflict/confrontations* – Students often want out of situations but don't know how to get out without losing face. Help them to understand alternatives to relational aggression or bullying, focusing on reducing embarrassment and building skills.

*Let students know they are important and worth it* – again, this is about positive relationships and building trust.

*Empower students against bullying* – We do this by helping build positive social skills, appropriate coping skills, and opening lines of communication. And once again, be consistent with classroom rules.

## Intervention

- Techniques
  - Positive Reinforcement vs. Punishment
    - Activity: What types of reinforcement/punishment are used in classroom currently?
  - Skills Building for Aggressor and Victim
    - Empathy/Perspective-Taking
    - Social Skills Training
    - Problem-Solving Training

There are two common intervention techniques. They are positive reinforcement and punishment. Positive reinforcement is rewarding of the behaviors that you want to increase. Reinforcement often takes the form of verbal praise and encouragement. Punishment is the negative consequences that result in the reduction of the behavior. In both cases, it is important to focus on the behavior and not the specific child. A common form of punishment is the loss of privilege.

It is important to note that any intervention should also involve skills building for aggressor and victim. The important elements to work on include empathy/perspective-taking, social skills training, and problem-solving training.

## Intervention

- 4 R's
  - Recognize the problem
  - Remove (step back) if not prepared to intervene
  - Review the situation
  - Respond
    - If confident, intervene → DO IT!
    - If not, assist with finding services

Using the 4 Rs to prevent relationally aggressive behavior is all about teacher recognition and reflection. The students' behaviors and understandings aren't the only ones we need to reflect on. The Four Rs of intervention are

- **Recognize** the problem
- **Remove** (step back) if not prepared to intervene
- **Review** the situation
- **Respond**
  - If confident, intervene → DO IT!
  - If not, assist with finding services

## Intervention

- Assisting Victims
  - General
    - Open-door Policy
    - Respond to ALL incidents
      - Take all reports seriously
      - Take action ASAP
    - Offer concrete help, support, advice for victim
    - Follow-up

*"Sometimes I just don't think teachers care if someone is being bullied...or maybe they just think if they ignore it, it will go away."  
-13-year old girl (Bully Busters, p. 132).*

With particular regard to victims it is important to know that, in general, we should be promoting an open-door policy. Also, back to consistency, we must respond to *all* incidents, taking action immediately and taking each incident seriously. We should offer concrete forms of support and follow up with students.

A quote that I found particularly useful in thinking about assisting victims is from a 13-year-old bullying victim, "*Sometimes I just don't think teachers care if someone is being bullied...or maybe they just think if they ignore it, it will go away.*"

Bystanders, Help recognize and reinforce feelings, Encourage group involvement, not isolation, and can serve as Peer mediators.

“Recognizing that we are all vulnerable and that no one deserves to be victimized is an important step in understanding that all people are potential victims and that only by supporting everyone can we prevent ourselves from becoming targeted for mistreatment” (Bully Busters, p. 140).

Here are the KEY references from which I have pulled the information for this presentation. If anyone would like a copy of this list or to review the full list of references, please feel free to contact me after the conclusion of the presentation.

This concludes the presentation. Thank you for your time and attention. Now, we have a few minutes of extra time. Does anyone have any questions or comments?

## Intervention

- Bystanders
  - Help recognize and reinforce feelings
  - Encourage group involvement, not isolation
  - Peer mediation

“Recognizing that we are all vulnerable and that no one deserves to be victimized is an important step in understanding that all people are potential victims and that only by supporting everyone can we prevent ourselves from becoming targeted for mistreatment” (Bully Busters, p. 140).

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## Questions? Comments?

## APPENDIX F

### IRB APPROVAL FOR PILOT STUDY

Office for Research  
Institutional Review Board for the  
Protection of Human Subjects

THE UNIVERSITY OF  
**ALABAMA**  
R E S E A R C H

May 14, 2015

Jamie Farquhar  
ESPRMC  
College of Education  
Box 870231

Re: IRB # 15-OR-161, "Impact of Targeted Training on Middle School Teachers' Knowledge, Frequency of Use, and Confidence in Identification, Prevention, and Intervention of Relational Aggression Among Students"

Dear Ms. Farquhar:

The University of Alabama Institutional Review Board has granted approval for your proposed research.

Your application has been given expedited approval according to 45 CFR part 46. Approval has been given under expedited review category 7 as outlined below:

*(7) Research on individual or group characteristics or behavior (including, but not limited to, research on perception, cognition, motivation, identity, language, communication, cultural beliefs or practices, and social behavior) or research employing survey, interview, oral history, focus group, program evaluation, human factors evaluation, or quality assurance methodologies.*

Your application will expire on May 12, 2016. If your research will continue beyond this date, please complete the relevant portions of the IRB Renewal Application. If you wish to modify the application, please complete the Modification of an Approved Protocol Form. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants. When the study closes, please complete the Request for Study Closure Form.

Please use reproductions of the IRB approved stamped consent forms to obtain consent from your participants.

Should you need to submit any further correspondence regarding this proposal, please include the above application number.

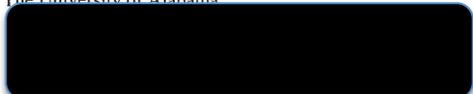
Good luck with your research.

Sincerely,



358 Rose Administration Building  
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Carpanato T. Myles, MSM, CIM, CIP  
Director & Research Compliance Officer  
Office for Research Compliance  
The University of Alabama



APPENDIX G

IRB APPROVAL FOR DISSERTATION STUDY

R E S E A R C H

Office for Research

Institutional Review Board for the  
Protection of Human Subjects

THE UNIVERSITY OF  
**ALABAMA**

Jamie Farquhar, MA  
Department of ESPRMC  
College of Education

September 17, 2015

The University of Alabama  
Box 870231

Re: IRB # 15-0R-161 (Revision) "Impact of Targeted Training on Middle School Teachers' Knowledge, Frequency of Use, and Confidence in Identification, Prevention, and Intervention of Relational Aggression among Students"

Dear Ms. Farquhar:

The University of Alabama Institutional Review Board has reviewed the revision to your previously approved expedited protocol. The board has approved the change in your protocol.

Please remember that your approval period expires one year from the date of your original approval, May 13, 2015, not the date of this revision approval.

Should you need to submit any further correspondence regarding this proposal, please include the assigned IRB application number. Changes in this study cannot be initiated without IRB approval, except when necessary to eliminate apparent immediate hazards to participants.

Good luck with your research.



358 Rose Administration  
Building

Box

Office for Research Compliance

APPENDIX H  
THREE-MONTH FOLLOW-UP LETTER FOR TEACHERS

Dear Participant:

The following survey is the final step in a research project you graciously agreed to participate in in \_\_\_\_\_. This dissertation research project is being conducted by Jamie Farquhar as part of her graduate studies at the University of Alabama. Again, this is a follow-up to the first data collection, and it's critically important that the project includes this data. Thank you again for your participation in this important component of the study.

Jamie Farquhar, MA

School Psychology Doctoral Candidate

University of Alabama

APPENDIX I

DATA MANAGEMENT PLAN FOR RESEARCH QUESTIONS

Data Management Plan				
Research Question	Measure	IV or Grouping Variables	DV	Projected Analysis
1	Survey→ Adapted TISK (knowledge, frequency of use) Confidence Scale	None		Descriptive Statistics
2	Survey→ Adapted TISK (knowledge, frequency of use) Confidence Scale Demographic Questionnaire	Demographics: Degree Achieved, Years Experience, Type of class taught, Gender, Race	1) Knowledge of Identification, Prevention, Intervention, and Total; 2) Frequency of use in identification, Prevention, Intervention, and Total; 3) Total Confidence	One-Way ANOVA
3	Survey→ Adapted TISK (knowledge, frequency of use) Confidence Scale (confidence)	Time 1→Before treatment Time 2→1 week post-treatment Time 3→3 months post-treatment	1) Knowledge of Identification, Prevention, Intervention, and Total; 2) Frequency of use in identification, Prevention, Intervention, and Total; 3) Total Confidence	Dependent Samples T-Test

APPENDIX J

DESCRIPTIVE STATISTICS FOR RESEARCH QUESTION 1 AND 2 FOR THE DEPENDENT VARIABLES OF KNOWLEDGE AND FREQUENCY OF USE IN IDENTIFICATION, PREVENTION, AND INTERVENTION AND TOTAL CONFIDENCE FROM THE FIRST SURVEY COMPLETED BY THE TREATMENT AND CONTROL GROUPS

<i>Descriptive Statistics for Dependent Variables of Total Knowledge, Frequency of Use, and Confidence in Identification, Prevention, and Intervention of Relational Aggression Reported on First Survey Completed by All Middle School Teachers</i>												
	Knowledge- Total	Knowledge- Identification	Knowledge- Prevention	Knowledge- Intervention	Frequency of Use- Total	Frequency of Use- Identification	Frequency of Use- Prevention	Frequency of Use- Intervention	Confidence- Total	Confidence- Identification	Confidence- Intervention	Confidence- Prevention
<b>Gender</b>												
Male	M=2.49; SD=.36 n=31	M=2.34; SD=.44 n=31	M=2.52; SD=.32 n=31	M=2.42; SD=.37 n=31	M=2.41 SD=.35 n=31	M=2.18 SD=.46 n=31	M=2.55 SD=.30 n=31	M=2.49 SD=.35 n=31	M=3.48 SD=.96 n=30	M=3.40 SD=1.1 n=30	M=3.67 SD=1.0 n=30	M=3.36 SD=1.1 n=30
Female	M=2.32; SD=.37 n=106	M=2.00; SD=.44 n=106	M=2.46; SD=.37 n=106	M=2.27; SD=.38 n=106	M=2.27 SD=.30 n=106	M=1.95 SD=.37 n=106	M=2.49 SD=.30 n=106	M=2.35 SD=.33 n=106	M=2.65 SD=.97 n=103	M=2.45 SD=1.1 n=103	M=2.88 SD=1.1 n=103	M=2.63 SD=1.1 n=103
Total	M=2.36 SD=.38 N=137	M=2.08 SD=.46 N=137	M=2.47 SD=.36 N=137	M=2.31 SD=.38 N=137	M=2.30 SD=.32 N=137	M=2.00 SD=.40 N=137	M=2.50 SD=.30 N=137	M=2.38 SD=.34 N=137	M=2.84 SD=1.03 N=133	M=2.66 SD=.1.18 N=133	M=3.06 SD=1.13 N=133	M=2.80 SD=1.12 N=133

<b>Subject</b>												
General Education Core Classes	M=2.31 SD=.35 n=100	M=2.01 SD=.41 n=100	M=2.44 SD=.35 n=100	M=2.26 SD=.36 n=100	M=2.25 SD=.29 n=100	M=1.93 SD=.34 n=100	M=2.47 SD=.30 n=100	M=2.32 SD=.32 n=100	M=2.65 SD=.93 n=97	M=2.46 SD=1.10 n=97	M=2.87 SD=1.06 n=97	M=2.63 SD=1.03 n=97
Other Classes	M=2.50 SD=.42 n=35	M=2.27 SD=.55 n=35	M=2.57 SD=.36 n=35	M=2.5 SD=.40 n=35	M=2.46 SD=.35 n=35	M=2.19 SD=.50 n=35	M=2.62 SD=.28 n=35	M=2.57 SD=.33 n=35	M=3.38 SD=1.11 n=34	M=3.21 SD=1.25 n=34	M=3.62 SD=1.16 n=34	M=3.32 SD=1.22 n=34
Total	M=2.36 SD=.38 N=135	M=2.08 SD=.46 N=135	M=2.47 SD=.36 N=135	M=2.31 SD=.38 N=135	M=2.30 SD=.32 N=135	M=2.00 SD=.41 N=135	M=2.51 SD=.30 N=135	M=2.38 SD=.34 N=135	M=2.84 SD=1.03 N=131	M=2.66 SD=1.19 N=131	M=3.06 SD=1.13 N=131	M=2.81 SD=1.12 N=131
<b>Education</b>												
Bachelor	M=2.37 SD=.38 n=64	M=2.11 SD=.48 n=64	M=2.46 SD=.35 n=64	M=2.33 SD=.40 n=64	M=2.32 SD=.33 n=64	M=2.02 SD=.42 n=64	M=2.51 SD=.31 n=64	M=2.39 SD=.35 n=64	M=2.88 SD=1.04 n=62	M=2.73 SD=1.16 n=62	M=3.00 SD=1.16 n=62	M=2.90 SD=1.14 n=62
Graduate Level	M=2.35 SD=.37 n=74	M=2.04 SD=.45 n=74	M=2.48 SD=.36 n=74	M=2.29 SD=.36 n=74	M=2.29 SD=.30 n=74	M=1.98 SD=.38 n=74	M=2.50 SD=.29 n=74	M=2.37 SD=.33 n=74	M=2.81 SD=1.01 n=72	M=2.61 SD=1.19 n=72	M=3.11 SD=1.16 n=72	M=2.71 SD=1.09 n=72
Total	M=2.36 SD=.37 N=138	M=2.08 SD=.46 N=138	M=2.47 SD=.35 N=138	M=2.31 SD=.38 N=138	M=2.30 SD=.32 N=138	M=2.00 SD=.40 N=138	M=2.50 SD=.30 N=138	M=2.38 SD=.34 N=138	M=2.84 SD=1.02 N=134	M=2.66 SD=1.18 N=134	M=3.06 SD=1.12 N=134	M=2.80 SD=1.12 N=134

<b>Years Taught</b>													
≤10 years	M=2.34 SD=.36 n=72	M=2.04 SD=.47 n=72	M=2.47 SD=.34 n=72	M=2.30 SD=.36 n=72	M=2.27 SD=.32 n=72	M=1.93 SD=.42 n=72	M=2.48 SD=.29 n=72	M=2.36 SD=.34 n=72	M=2.85 SD=1.01 n=70	M=2.66 SD=1.11 n=70	M=3.11 SD=1.14 n=70	M=2.77 SD=1.13 n=70	
>10 years	M=2.35 SD=.38 n=64	M=2.09 SD=.43 n=64	M=2.46 SD=.37 n=64	M=2.30 SD=.40 n=64	M=2.32 SD=.30 n=64	M=2.05 SD=.36 n=64	M=2.52 SD=.31 n=64	M=2.38 SD=.33 n=64	M=2.78 SD=1.03 n=62	M=2.60 SD=1.19 n=62	M=2.97 SD=1.12 n=62	M=2.79 SD=1.10 n=62	
Total	M=2.35 SD=.37 N=136	M=2.06 SD=.45 N=136	M=2.46 SD=.35 N=136	M=2.30 SD=.37 N=136	M=2.29 SD=.31 N=136	M=1.99 SD=.39 N=136	M=2.50 SD=.29 N=136	M=2.37 SD=.33 N=136	M=2.82 SD=1.01 N=132	M=2.63 SD=1.15 N=132	M=3.05 SD=1.12 N=132	M=2.78 SD=1.11 N=132	
<b>Race</b>													
White/ Caucasian	M=2.35 SD=.37 n=102	M=2.07 SD=.45 n=102	M=2.47 SD=.35 n=102	M=2.30 SD=.38 n=102	M=2.28 SD=.31 n=102	M=1.97 SD=.38 n=102	M=2.48 SD=.29 n=102	M=2.36 SD=.33 n=102	M=2.75 SD=.99 n=100	M=2.55 SD=1.12 n=100	M=3.01 SD=1.12 n=100	M=2.70 SD=1.11 n=100	
Other/ Multiple	M=2.33 SD=.36 n=33	M=2.05 SD=.47 n=33	M=2.45 SD=.36 n=33	M=2.29 SD=.35 n=33	M=2.33 SD=.33 n=33	M=2.04 SD=.44 n=33	M=2.54 SD=.31 n=33	M=2.39 SD=.34 n=33	M=3.02 SD=1.08 n=31	M=2.87 SD=1.23 n=31	M=3.16 SD=1.16 n=31	M=3.03 SD=1.14 n=31	
Total	M=2.35 SD=.37 N=135	M=2.06 SD=.45 N=135	M=2.46 SD=.35 N=135	M=2.30 SD=.38 N=135	M=2.29 SD=.31 N=135	M=1.99 SD=.39 N=135	M=2.50 SD=.30 N=135	M=2.37 SD=.33 N=135	M=2.82 SD=1.02 N=131	M=2.63 SD=1.15 N=131	M=3.05 SD=1.13 N=131	M=2.78 SD=1.12 N=131	

Note: Range for Knowledge and Frequency of Use variables is 1-3; Range for Confidence variables is 1-5.

APPENDIX K

TREATMENT AND CONTROL GROUP DEPENDENT SAMPLES T-TEST RESULTS FOR THE FIRST AND THREE-MONTH FOLLOW-UP SURVEYS

Treatment Group Dependent Samples T-tests: Changes in mean of dependent variables at first and second survey points						
Variable	First Survey	3-Month Follow-Up	t	df	p value	Effect Size
	M (SD)	M (SD)				
Knowledge-Intervention	2.25 (.391)	2.66 (.291)	-8.05	73	.000	.94
Knowledge-Prevention	2.41 (.351)	2.48 (.335)	-1.33	73	.188	.15
Knowledge-Identification	2.00 (.449)	2.72 (.266)	-11.60	73	.000	1.35
Knowledge-Total	2.29 (.378)	2.63 (.268)	-6.47	73	.000	.75
Frequency of Use-Intervention	2.33 (.351)	2.57 (.261)	-4.60	73	.000	.53
Frequency of Use-Prevention	2.45 (.308)	2.21 (.369)	4.14	73	.000	-.48
Frequency of Use-Identification	1.95 (.344)	2.63 (.240)	-14.75	73	.000	1.71
Frequency of Use-Total	2.25 (.305)	2.48 (.259)	-4.73	73	.000	.55
Confidence-Total	2.72 (.984)	3.61 (.896)	-5.89	72	.000	.69

Control Group Dependent Samples T-tests: Changes in mean of dependent variables at first and second survey points

Variable	First Survey	3-Month Follow-Up	t	df	p value	Effect Size
	M (SD)	M (SD)				
Knowledge-Intervention	2.35 (.345)	2.60 (.365)	-3.59	48	.001	.51
Knowledge-Prevention	2.51 (.348)	2.43 (.489)	1.02	48	.311	-.15
Knowledge-Identification	2.14 (.458)	2.68 (.331)	-6.54	48	.000	.93
Knowledge-Total	2.41 (.358)	2.57 (.356)	-2.38	48	.021	.34
Frequency of Use-Intervention	2.42 (.318)	2.57 (.288)	-2.84	48	.007	.41
Frequency of Use-Prevention	2.55 (.288)	2.25 (.462)	4.91	48	.000	-.70
Frequency of Use-Identification	2.02 (.431)	2.66 (.263)	-9.66	48	.000	1.38
Frequency of Use-Total	2.34 (.318)	2.57 (.365)	-4.09	48	.000	.58
Confidence-Total	2.95 (1.051)	3.30 (1.233)	-1.70	45	.097	.25

APPENDIX L

DESCRIPTIVE STATISTICS TABLES FOR KNOWLEDGE AND FREQUENCY OF USE ITEMS FROM THE SURVEY  
COMPLETED BY THE TREATMENT AND CONTROL GROUPS

<i>Descriptive Statistics for Knowledge of Relational Aggression Items from adapted TISK administered in first survey to combined treatment and control groups</i>					
Category and Items  (Item numbers from the first survey are noted for each item)	N	Range	<i>M</i>	<i>SD</i>	Frequency of Each Response Choice (Percentage)  Unfamiliar      Somewhat Familiar      Very Familiar

<b>Knowledge-Identification</b>							
16. The types and behaviors of relational aggression.	139	1-3	1.81	.64	44(31.7)	77(55.4)	18(12.9)
17. The functions of relationally aggressive behavior.	139	1-3	1.7	.64	56(40.3)	69(49.6)	14(10.1)
20. The lasting effects of relational aggression victimization.	138	1-3	1.80	.67	47(34.1)	71(51.4)	20(14.5)
25. Defusing relationally aggressive situations in the classroom immediately.	139	1-3	2.35	.68	16(11.5)	59(42.4)	64(46.0)
26. Making a referral to counselor regarding relational aggression.	139	1-3	2.41	.68	15(10.8)	52(37.4)	72(51.8)
27. Consulting with school counselor, school psychologist, or other professional with regard to relationally aggressive behaviors.	138	1-3	2.34	.68	16(11.6)	59(42.8)	63(45.7)
28. The effects of implementing classroom activities to increase awareness of aggressive behaviors/victimization.	138	1-3	2.13	.68	21(15.2)	78(56.5)	39(28.3)
30. Making a disciplinary referral regarding							

relational aggression.	138	1-3	2.29	.69	18(13.0)	62(45.0)	58(42.0)
31. The value of contacting parents regarding a student's social misbehavior via phone call, letter, conference.	139	1-3	2.61	.55	4(2.9)	46(33.1)	89(64.0)
36. Identifying relational aggression behavior among students	139	1-3	2.02	.64	27(19.4)	82(59.0)	30(21.6)
37. Explaining relational aggression Definition to students, parents, and/or colleagues.	139	1-3	1.73	.66	54(38.8)	69(49.6)	16(11.5)
38. Explaining the different <i>types</i> of Relational Aggression to students, parents, and/or colleagues.	139	1-3	1.64	.64	62(44.6)	65(46.8)	12(8.6)
<b>Knowledge-Prevention</b>							
1. The zero-tolerance policy use and requirements.	139	1-3	2.29	.55	7(5.0)	85(61.2)	47(33.8)
3. The benefits of teacher support teams as a resource for consultation and support for relational aggression problems.	138	1-3	2.23	.68	19(13.8)	68(49.3)	51(37.0)
8. The benefits of teaching confidence and self-esteem building skills to all students.	139	1-3	2.65	.49	1(0.7)	46(33.1)	92(66.2)
9. The benefits of highlighting strengths of all students (help students become aware of their							

strengths).	139	1-3	2.71	.46	--	41(29.5)	98(70.5)
19. The effects of praise and attention to reinforce good behaviors and accomplishments.	139	1-3	2.65	.49	1(0.7)	47(33.8)	91(65.5)
22. The benefit of establishing and implementing classroom rules and a code of conduct that includes relational aggression.	138	1-3	2.41	.69	16(11.5)	50(36.0)	72(51.8)
23. The importance of modeling decision-making, respect for others, and a positive attitude as a means to combat relational aggression.	139	1-3	2.44	.66	13(9.4)	52(37.4)	74(53.2)
24. The value of creating opportunities for student success in terms of positive social interaction.	139	1-3	2.50	.53	2(1.4)	66(47.5)	71(51.1)
29. Using group problem solving for and with other teachers.	139	1-3	2.20	.64	17(12.2)	77(55.4)	45(32.4)
32. The value of contacting parents regarding positive social behavior of all students.	139	1-3	2.53	.58	6(4.3)	54(38.8)	79(56.8)
33. The benefits of when teacher/school provides workshops, seminars, and other opportunities for parents to seek new information and skills about relational	139	1-3	2.21	.72	24(17.3)	62(44.6)	53(38.1)

aggression.							
34. The value of developing a special relationship with each child.	139	1-3	2.75	.45	1(0.7)	33(23.7)	105(75.5)
35. The benefits of believing that you can successfully bring about a desired outcome in ALL students (teacher self-efficacy).	138	1-3	2.54	.57	5(3.6)	54(39.1)	79(57.2)
<b>Knowledge-Intervention</b>							
2. The effects of modeling positive social skills as a way to combat relational aggression.	139	1-3	2.35	.60	9(6.5)	72(51.8)	58(41.7)
4. The effects of consequences for undesirable acts/misbehavior committed by students.	139	1-3	2.45	.58	6(4.3)	65(46.8)	68(48.9)
5. Reinforcing non-aggressive behaviors (e.g., on-task behavior, helping behavior, assertive/nonaggressive behaviors).	139	1-3	2.56	.50	--	61(43.9)	78(56.1)
6. The student benefits of teaching positive social skills for entering groups, conversations, and other social activities.	139	1-3	2.63	.50	--	52(37.4)	87(62.6)
7. The value in teaching steps of positive problem solving and decision-making as a means to combat relational aggression.	139	1-3	2.40	.61	9(6.5)	65(46.8)	65(46.8)

10. The “Four R’s” of bully control: Recognize, Remove, Review, Respond.	139	1-3	1.83	.67	45(32.4)	73(52.5)	21(15.1)
11. The effects of encouraging students to understand the other’s point of view (develop an empathetic understanding) with regard to relational aggression.	139	1-3	2.34	.60	9(6.5)	74(53.2)	56(40.3)
12. The value of having open discussions with aggressors and victim.	138	1-3	2.24	.62	14(10.1)	77(55.8)	47(34.1)
13. The value of rewards for improvements (successive approximations of desired behavior as opposed to relational aggression).	137	1-3	2.23	.68	19(13.9)	68(49.6)	50(36.5)
14. The effects of coping skills for dealing with relational aggression.	138	1-3	2.01	.68	31(22.5)	74(53.6)	33(23.9)
15. The effects of providing support for all students (create an “open door” policy).	138	1-3	2.54	.59	7(5.1)	50(36.2)	81(58.7)
18. The benefits of reinforcing behavior, not the child (e.g., “Bob, I am proud of you for _____”).	139	1-3	2.50	.53	2(1.4)	65(46.8)	72(51.8)
21. The value of following up on relationally aggressive incidents.	139	1-3	1.88	.64	38(27.3)	80(57.6)	21(15.1)

*Descriptive Statistics for Frequency of Use of Relational Aggression Items from adapted TISK see notes above about additional things for each table*

Item Category	N	Range	M	SD	Frequency		
					Never	Sometimes	Often
<b>Frequency of Use-Identification</b>							
16. The types and behaviors of relational aggression.	138	1-3	1.77	.71	54(39.1)	62(44.9)	22(15.9)
17. The functions of relationally aggressive behavior.	139	1-3	1.73	.68	55(39.6)	66(47.5)	18(12.9)
20. The lasting effects of relational aggression victimization.	139	1-3	1.81	.64	44(31.7)	77(55.4)	18(12.9)
25. Defusing relationally aggressive situations in the classroom immediately.	138	1-3	2.56	.58	6(4.3)	49(35.3)	83(59.7)
26. Making a referral to counselor regarding relational aggression.	139	1-3	2.21	.56	10(7.2)	90(64.7)	39(28.1)
27. Consulting with school counselor, school psychologist, or other professional with regard to relationally aggressive behaviors.	139	1-3	2.27	.54	6(4.3)	89(64.0)	44(31.7)
28. The effects of implementing classroom activities to increase awareness of aggressive behaviors/victimization.	139	1-3	1.86	.68	43(30.9)	73(52.5)	23(16.5)

30. Making a disciplinary referral regarding relational aggression.	138	1-3	2.21	.52	7(5.1)	95(68.8)	36(26.1)
31. The value of contacting parents regarding a student's social misbehavior via phone call, letter, conference.	139	1-3	2.42	.52	2(1.4)	77(55.4)	60(43.2)
36. Identifying relational aggression behavior among students	139	1-3	1.97	.62	29(20.9)	85(61.2)	25(18.0)
37. Explaining relational aggression Definition to students, parents, and/or colleagues.	139	1-3	1.62	.64	65(46.8)	62(44.6)	12(8.6)
38. Explaining the different <i>types</i> of Relational Aggressionjtstudents, parents, and/or colleagues.	139	1-3	1.54	.63	74(53.2)	55(39.6)	10(7.2)
Frequency of Use-Prevention	139						
1. The zero-tolerance policy use and requirements.		1-3	2.59	.52	2(1.4)	53(38.1)	84(60.4)
3. The benefits of teacher support teams as a resource for consultation and support for relational aggression problems.	139	1-3	2.24	.69	20(14.4)	66(47.5)	53(38.1)
8. The benefits of teaching confidence and self-esteem building skills to all students.	139	1-3	2.44	.60	8(5.8)	62(44.6)	69(49.6)
9. The benefits of highlighting strengths of all students (help students become aware of their strengths).	139	1-3	2.60	.52	2(1.4)	52(37.4)	85(61.2)

19. The effects of praise and attention to reinforce good behaviors and accomplishments.	139	1-3	2.70	.49	2(1.4)	38(27.3)	99(71.2)
22. The benefit of establishing and implementing classroom rules and a code of conduct that includes relational aggression.	139	1-3	2.88	.35	1(0.7)	15(10.8)	123(88.5)
23. The importance of modeling decision-making, respect for others, and a positive attitude as a means to combat relational aggression.	138	1-3	2.83	.42	2(1.4)	20(14.5)	116(84.1)
	139						
24. The value of creating opportunities for student success in terms of positive social interaction.		1-3	2.86	.37	1(0.7)	18(12.9)	120(89.3)
29. Using group problem solving for and with other teachers.	139	1-3	2.21	.64	17(12.2)	76(54.7)	46(33.1)
32. The value of contacting parents regarding positive social behavior of all students.	139	1-3	2.10	.61	19(13.7)	87(62.6)	33(23.7)
33. The benefits of when teacher/school provides workshops, seminars, and other opportunities for parents to seek new information and skills about relational aggression.	139	1-3	1.99	.64	29(20.9)	82(59.0)	28(20.1)
34. The value of developing a special relationship with each child.	139	1-3	2.61	.52	2(1.4)	50(36.0)	87(62.6)

35. The benefits of believing that you can successfully bring about a desired outcome in ALL students (teacher self-efficacy).	139	1-3	2.51	.54	3(2.2)	62(44.6)	74(53.2)
Frequency of Use-Intervention							
2. The effects of modeling positive social skills as a way to combat relational aggression.	139	1-3	2.78	.43	1(0.7)	28(20.1)	110(79.1)
4. The effects of consequences for undesirable acts/misbehavior committed by students.	139	1-3	2.69	.48	1(0.7)	41(29.5)	97(69.8)
5. Reinforcing non-aggressive behaviors (e.g., on-task behavior, helping behavior, assertive/nonaggressive behaviors).	139	1-3	2.53	.50	--	66(47.5)	73(52.5)
6. The student benefits of teaching positive social skills for entering groups, conversations, and other social activities.	139	1-3	2.54	.58	6(4.3)	52(37.4)	81(58.3)
7. The value in teaching steps of positive problem solving and decision-making as a means to combat relational aggression.	139	1-3	2.45	.58	6(4.3)	64(46.0)	68(48.9)
10. The “Four R’s” of bully control: Recognize, Remove, Review, Respond.	139	1-3	1.86	.63	39(28.1)	81(58.3)	19(13.7)

11. The effects of encouraging students to understand the other's point of view (develop an empathetic understanding) with regard to relational aggression.	139	1-3	2.40	.52	2(1.4)	80(57.6)	57(41.0)
12. The value of having open discussions with aggressors and victim.	138	1-3	2.10	.68	26(18.7)	73(52.5)	40(28.8)
13. The value of rewards for improvements (successive approximations of desired behavior as opposed to relational aggression).	137	1-3	2.30	.59	9(6.5)	78(56.5)	51(37.0)
14. The effects of coping skills for dealing with relational aggression.	138	1-3	2.17	.63	17(12.3)	80(58.0)	41(29.7)
15. The effects of providing support for all students (create an "open door" policy).	138	1-3	2.68	.48	1(0.7)	42(30.2)	96(69.1)
18. The benefits of reinforcing behavior, not the child (e.g., "Bob, I am proud of you for _____").	139	1-3	2.49	.53	2(1.4)	66(47.8)	70(50.7)
21. The value of following up on relationally aggressive incidents.	139	1-3	1.94	.66	34(24.6)	78(56.5)	26(18.8)

APPENDIX M

ONE-WAY ANOVA TABLE FOR RESEARCH QUESTION 2 DEMOGRAPHIC VARIABLES OF GENDER, SUBJECT TAUGHT, AND HIGHEST EDUCATION LEVEL

<i>One-Way ANOVA Table for Gender, Subject Taught, and Highest Education Level for Knowledge and Frequency of Use in Identification, Prevention, and Intervention and Total Confidence of Relational Aggression Reported on the First Adapted TISK by All Middle School Teachers</i>												
	<i>Gender</i>				<i>Subject Taught</i>				<i>Education</i>			
	<i>df</i>	<i>F</i>	$\eta_p^2$	<i>p</i>	<i>df</i>	<i>F</i>	$\eta_p^2$	<i>p</i>	<i>df</i>	<i>F</i>	$\eta_p^2$	<i>p</i>
Knowledge												
Identification	1	8.09	.06	.005	1	2.69	.02	.103	1	.013	.000	.909
Prevention	1	.01	.00	.92	1	1.06	.01	.305	1	.078	.001	.781
Intervention	1	1.14	.01	.287	1	2.75	.02	.100	1	.094	.001	.759
Total	1	2.20	.02	.141	1	2.36	.02	.127	1	.036	.000	.851
Frequency of Use												
Identification	1	4.7	.04	.032	1	6.05	.05	.015	1	.067	.001	.796
Prevention	1	.074	.001	.786	1	3.46	.03	.065	1	.074	.001	.786
Intervention	1	1.28	.01	.26	1	8.89	.07	.003	1	.363	.003	.548
Total	1	1.89	.02	.171	1	7.17	.05	.008	1	.173	.001	.678
Total Confidence	1	11.01	.08	.001	1	5.81	.05	.017	1	.895	.007	.346

APPENDIX N

DESCRIPTIVE STATISTICS FOR RESEARCH QUESTION 3 OF DEPENDENT VARIABLES OF KNOWLEDGE, FREQUENCY OF USE, AND CONFIDENCE OF IDENTIFICATION, PREVENTION, AND INTERVENTION FOR THE FIRST SURVEY AND THREE-MONTH FOLLOW-UP SURVEY COMPLETED BY THE TREATMENT AND CONTROL GROUPS

<i>Descriptive Statistics for Dependent Variables of Total Knowledge and Frequency of Use in Identification, Prevention, and Intervention and Total Confidence of Relational Aggression Reported by Pre-Training and 3-Month Post-Training for Treatment and Control Groups</i>												
	Know Total	Know ID	Know Prevent	Know Interv	Use Total	Use ID	Use Prevent	Use Interv	Conf Total	Conf ID	Conf Prevent	Conf Interv
Pre-Training												
Treatment	M=2.29 SD=.38 n=74	M=2.00 SD=.45 n=74	M=2.41 SD=.35 n=74	M=2.25 SD=.39 n=74	M=2.25 SD=.31 n=74	M=1.95 SD=.34 n=74	M=2.45 SD=.31 n=74	M=2.33 SD=.35 n=74	M=2.72 SD=.98 n=73	M=2.58 SD=1.15 n=73	M= 2.64 SD=1.10 n=73	M=2.95 SD=1.08 n=73
Control	M=2.41 SD=.36 n=49	M=2.14 SD=.46 n=49	M=2.52 SD=.35 n=49	M=2.35 SD=.35 n=49	M=2.34 SD=.32 n=49	M=2.02 SD=.43 n=49	M=2.55 SD=.29 n=49	M=2.42 SD=.32 n=49	M=2.95 SD=1.05 n=45	M=2.71 SD=1.16 n=45	M=2.93 SD=1.10 n=45	M=3.11 SD=1.15 n=73
Total	M=2.34 SD=.37 N=123	M=2.05 SD=.46 N=123	M=2.45 SD=.35 N=123	M= 2.29 SD=.38 N=123	M=2.29 SD=.31 N=123	M=1.98 SD=.38 N=123	M=2.49 SD=.30 N=123	M=2.37 SD=.34 N=123	M=2.81 SD=1.01 N=118	M=2.63 SD=1.15 N=118	M=2.75 SD=1.10 N=118	M=3.01 SD=1.11 N=118

3-Months												
Post- Training												
Treatment	M=2.63 SD=.27 n=74	M=2.72 SD=.27 n=74	M=2.48 SD=.33 n=74	M=2.66 SD=.29 n=74	M=2.63 SD=.24 n=74	M=2.63 SD=.24 n=74	M=2.21 SD=.37 n=74	M=2.57 SD=.26 n=74	M=3.61 SD=.90 n=73	M=3.47 SD=1.09 n=73	M=3.52 SD=1.00 n=73	M=3.84 SD=.94 n=73
Control	M=2.57 SD=.37 n=49	M=2.68 SD=.33 n=49	M=2.43 SD=.49 n=49	M=2.60 SD=.37 n=49	M=2.66 SD=.27 n=49	M=2.66 SD=.27 n=49	M=2.25 SD=.46 n=49	M=2.57 SD=.29 n=49	M=3.30 SD=1.23 n=45	M=3.20 SD=1.27 n=45	M=3.31 SD=1.24 n=45	M=3.62 SD=1.23 n=45
Total	M=2.60 SD=.31 N=123	M=2.71 SD=.29 N=123	M=2.46 SD=.40 N=123	M=2.63 SD=.32 N=123	M=2.64 SD=.25 N=123	M=2.64 SD=.25 N=123	M=2.23 SD=.41 N=123	M=2.57 SD=.27 N=123	M=3.49 SD=1.04 N=118	M=3.36 SD=1.17 N=118	M=3.44 SD=1.10 N=118	M=3.75 SD=1.06 N=118

Notes. Know Total = Knowledge Total; Know ID = Knowledge Identification; Know Prevent = Knowledge Prevention; Know Interv = Knowledge Intervention; Use Total = Frequency of Use Total; Use ID = Frequency of Use Identification; Use Prevent = Frequency of Use Prevention; Use Interv = Frequency of Use Intervention; Conf Total = Confidence Total; Conf ID = Confidence Identification; Conf Prevent = Confidence Prevention; Conf Interv = Confidence Intervention