

Effects of a Restorative Justice Based Intervention on Peer Victimization and Positive Youth

Development Outcomes at the Middle School Level

By

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Mindi Moses

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Megan Pacey, PhD, Co-Chair

---

Anne Williford, PhD, Co-Chair

---

Andy Zinn, PhD, Methodologist

---

Margaret Severson, JD, Committee member

---

Paula Fite, PhD, Graduate Studies Representative

Date defended: August 20, 2018

The dissertation committee for Mindi Moses certifies that this is the approved version of the following dissertation:

Effects of a Restorative Justice Based Intervention on Peer Victimization and Positive Youth Development Outcomes at the Middle School Level

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Co-Chair: Megan Pacey, PhD

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Co-Chair: Anne Williford, PhD

Date approved: August 27, 2018

## Abstract

Peer victimization in U.S. schools is a serious social issue. Research shows aggressive behavior toward peers peaks during the middle school years. However, existing interventions to combat bullying and victimization have decreased efficacy with youth as they age. This dissertation research sought to evaluate an intervention aimed at addressing the issue of peer victimization with middle school aged students. This approach known as restorative justice conceptualizes harm as a violation of human relationships and emphasizes dialogue, accountability, reconciliation, and reintegration as key components of healing and repair.

This study's sample was composed of 2,425 students from 13 middle schools. Seven schools composed the treatment group that received training, consultation and support as they implemented the Restorative Practices Intervention for a period of 2 years. Data were gathered pre- and post-intervention. Outcome measures included data on student experiences of peer victimization, levels of empathy, peer cooperation, and school connectedness. Results showed no significant differences in victimization outcomes between the treatment and control groups; however, significant pathways were found in models evaluating the effects of intervention components on positive youth development outcomes. Positive significant pathways were found between empathy and shame management and between peer cooperation and restorative dialogue. These results suggest that the restorative justice based intervention has the potential to influence positive youth development and enhance peer interactions in schools. These results also suggest directions for future research and important implications for policy and practice.

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## **Chapter 1: Introduction**

Peer aggression and victimization are major social concerns affecting children and youth in U.S. schools (Hong & Espelage, 2012). Aggression can be defined as intentionally hostile or violent behavior toward another. Victims can experience aggression by their peers in various ways, including through face-to-face confrontation or indirectly through a third party (Bjorkqvist, Lagerspetz, & Kaukiainen, 1992). Direct victimization can be physical (e.g. hitting, pushing, and kicking) and/or verbal such as name-calling and hurtful teasing (Wang, Iannotti, & Nansel, 2009). Relational acts of victimization are such things as spreading rumors, gossiping, and social exclusion that are intended to harm the social standing or reputation of the victim (Crick & Grotpeter, 1995). Cyberbullying occurs when aggressors send harmful or threatening messages via a computer or cell phone (Wang et al., 2009).

Bullying is a form of aggressive behavior and includes three defining features: intention to harm on the part of the bully or bullies, an imbalance of power between bully and victim, and repetition of the behavior over time (Olweus, 1993). In 2014, the Centers for Disease Control in conjunction with the U.S. Department of Education, released a statement detailing these three aforementioned elements as comprising the first federal definition of bullying for research purposes (Gladden, Vivolo-Kantor, Hamburger, & Lumpkin, 2014). This present study focuses on the broader issue of peer victimization acknowledging that bullying is one serious form of peer victimization.

### **Prevalence**

Peer victimization in U.S. schools is a prevalent social problem. Estimates of victimization, however, vary across samples ranging from 13% to 75% (Swearer, Siebecker, Johnsen-Frerichs, & Wang, 2010). The U.S. Youth Risk Behavior Survey found that 20.2% of



students reported being bullied some point during the previous year (Kann et al., 2016). Wang and colleagues (2009) found that among U.S. adolescents 12.8% reported being subject to physical victimization, 36.5% reported verbal victimization, 41.0% gave reports of relational victimization, and 9.8% reported being victims of cyberbullying. Another U.S. study investigated rates of perpetration and victimization by gender: 22% were found as male perpetrators, 15.1% for female perpetrators, 23.7% for male victims, and 18.8% for female victims (Cook, Williams, Guerra, & Kim, 2010).

### **Outcomes**

Not only is peer victimization prevalent in U.S. schools, but it is also associated with a host of negative consequences for victims (Juvonen & Graham, 2001). Victims face possible negative and lasting outcomes to their academic, social, and emotional development (Card, Isaacs, & Hodges, 2007; Cook, Williams, Guerra, & Kim, 2010; Reijntjes, Kamphuis, Prinzie, & Telch, 2010; Reijntjes et al., 2011; Ttofi, Farrington, Losel, & Loeber, 2011). Victims report significantly higher rates of internalizing problems such as depression and anxiety, higher levels of stress, and lower self-esteem (Espelage & Holt, 2001; Morrison, 2002; Reijntjes et al., 2010; Ttofi et al., 2011). Victims may hold greater negative perceptions of their peers independent of other contributing factors, experience greater difficulty with school adjustment, and have poorer academic outcomes (Card, Stucky, Sawalal, & Little, 2008; Haynie et al., 2001; Juvonen, Graham, & Shuster, 2003; Salmivalli & Isaacs, 2005; Schwartz, Gorman, Nakamoto, & Toblin, 2005). Victims of bullying have also been found to be more likely to victimize others (Barboza et al., 2009) and being a target of bullying type behavior is positively related to fighting and substance use (Nansel, Overpeck, Haynie, Ruan, & Scheidt, 2003). Research has shown that

negative outcomes related to the consequences of being victimized as a youth can persist into adulthood (Rigby, 2003).

Research has shown that aggressive behavior increases over the elementary years, peaks during early adolescence, and then declines throughout the high school years (Nansel et al., 2001; Pellegrini & Bartini, 2001). Early adolescence can be defined as the period between the ages of 11 and 14 and is a time when developmental and school transitions occur simultaneously with significant biological, social, and emotional changes (Adams, Bartlett, & Bukowski, 2010; Espelage, Hong, Rao, & Thornberg, 2015; Pellegrini & Long, 2004; Steinberg, 2010). Consequently, early adolescence is a critical period to intervene in situations involving aggressive behavior which may in turn positively alter the trajectories for youth as they move into high school.

### **Established Programming**

Numerous approaches to addressing victimization among students have been developed and implemented throughout the years. The Olweus Anti-Bullying Program, the first established of its kind, focuses on enhancing school climate and working with bystanders, bullies, and victims through a systematic, whole school approach (Olweus, 1997). Second Step is a classroom-based program that emphasizes the introduction of social emotional learning. Second Step uses direct instruction, hands-on activities, role playing, and other group and individual activities in an effort to reduce risk factors that may lead to an increase in the likelihood of bullying and other aggressive behaviors. Simultaneously, the program also aims to increase positive mitigating factors such as empathy, school connectedness, and social skills to prevent bullying (Committee for Children, 2008). These are just two examples of the numerous approaches that are commonly implemented in schools. Other widely adopted programs focus on

bystander intervention, assertiveness training, and/or conflict resolution skills (Avsar & Ayaz Alkaya, 2017; Farrell, Meyer, Sullivan, & Kung, 2003; Farrell, Meyer, & White, 2001; Juvonen, Schacter, Sainio, & Salmivalli, 2016). Although there is a multitude of established programs, there remains much debate about what approach is most effective and for whom (Bradshaw, 2015; Ttofi & Farrington, 2011).

### **Established Program Effectiveness**

Some scholars have taken the necessary steps to systematically evaluate the effectiveness of established programming. This has been completed through conducting meta-analyses in an effort to identify which of these various approaches and programs work most effectively in general and by subgroups (Ferguson, San Miguel, Kilburn, & Sanchez, 2007; Jiménez-Barbero, Ruiz-Hernandez, Llor-Zaragoza, Perez-Garcia, & LlorEsteban, 2016; Merrell, Gueldner, Ross, & Isava, 2008; Ttofi & Farrington, 2011; Yeager, Fong, Lee, & Espelage, 2015).

These programs have been evaluated rigorously and shown positive, yet limited results (Evans, Fraser, & Cotter, 2014; Ferguson et al., 2007; Jiménez-Barbero et al., 2016; Merrell et al., 2008; Ttofi & Farrington, 2011; Yeager et al., 2015). The results from these meta-analyses and systematic reviews will be shared in greater detail in Chapter 2. In brief, several studies found significant positive effects toward the reduction of bullying and victimization in the programs they evaluated (Ferguson et al., 2007; Merrell et al., 2008; Ttofi & Farrington, 2011). In a systematic review of the literature, Evans, Fraser, and Cotter (2014) found reductions in bullying perpetration and victimization for 50% and 67%, respectively, of the programs included in their review. Ttofi and Farrington (2011) found common program components that were associated with greater positive effect sizes. These components included: focus on disciplinary methods, playground supervision, teacher training, classroom rule setting, school assemblies,

psychoeducation for parents, cooperative group work, drama, videos, and whole school anti-bullying policies.

The results of these meta-analyses reveal that there are programs that have significant impacts in terms of reducing bullying and victimization in schools (Ferguson et al., 2007; Merrell et al., 2008; Ttofi & Farrington, 2011). However, there exist limitations in these program results, some stemming from the fact that in certain cases only small to modest size impacts were found and for some the effect sizes did not reach the threshold of practical significance (Ferguson et al., 2007; Merrell et al. 2008). Additionally, results reveal that the positive effects did not apply equally to all subgroups. Stronger effect sizes were found in many cases among the more homogenous groups of students and in those studies conducted outside the United States (Evans et al., 2014; Farrington & Ttofi, 2009). Yeager and colleagues (2015) found that the strength of effect sizes declined as the age of the students increased.

Therefore, these limitations highlight the uncertainty that remains regarding which anti-bullying programming is effective. There exists a need to find anti-bullying approaches and programs that fit the developmental needs of adolescents including a shift from harsher, more punitive approaches toward approaches that focus on relationships and honoring youths' desire for more autonomy (Guerra, Williams, & Sadek, 2011; Van Ness & Strong, 2010; Zehr & Mika, 2004). One approach that is emerging as a part of anti-bullying efforts in U.S. schools, restorative justice, will be described and rationale provided as to why this intervention may be potentially effective when implemented with younger adolescents.

### **Introduction to Restorative Justice**

Although restorative justice was not initially developed as an anti-bullying program, its unique perspective on viewing harm, its comprehensive approach, and use of formal and

informal practices may be effective for dealing with peer aggression and victimization among early adolescents (Van Ness & Strong, 2010; Zehr & Mika, 2004). Unlike the punitive approach which largely views harm as rule breaking, the restorative approach views harm as a violation of human relationships (Van Ness & Strong, 2010; Zehr & Mika, 2004). At an age when relational aggression increases and peer relationships are prioritized above other relationships (Guerra et al., 2011), restorative justice's approach to relationship repair may be especially relevant.

Restorative justice takes a comprehensive approach to dealing with harm. The restorative approach recognizes that multiple environments contribute to the development, maintenance, and desistance of aggressive behavior in youth (Hopkins, 2002). Consistent with this theoretical perspective, restorative justice works through a whole school approach to influence behavior. All adults that interact with students are trained in restorative practices. The practices that are interwoven into the school day and adopted by the entire school community are based on the ideals of fairness, respect, student choice and autonomy, and accountability (Van Ness & Strong, 2010; Zehr & Mika, 2004). These same principles and values align with what developmental theorists and scholars identify as the needs of youth during adolescence (Arnett, 1992; Cauffman & Steinberg, 2000; Dahl, 2004; Gardner & Steinberg, 2005). Additionally, it is theorized that components such as fairness, respect, self-efficacy, and belonging may be influential in increasing positive youth development outcomes in youth and may work to enhance peer interactions in the classroom and at the school level (Bowers et al., 2010).

Lastly, restorative justice focuses on repair, resolution, and reintegration through active community participation in meeting the needs of both the victim as well as the offender after an incident of harm has occurred. In restorative justice, resolution and reintegration are sought through practices such as formal and informal conferences, mediations, and shared goals among

the school community (Van Ness & Strong, 2010; Zehr & Mika, 2004). These conferences and mediations include all affected parties with the goal of seeking resolution. After the offender is held accountable and makes amends, he or she is reintegrated back into the community. This type of approach is in stark contrast to practices commonly employed in schools such as zero tolerance policies. Zero tolerance policies demand that the offending youth be suspended or expelled from the school community with often little or no dialogue about the issue. These punitive approaches can also have unintended consequences for youth such as increases in internalizing disorders and school drop-outs, and disproportionately negative effects on minority youth (Giroux, 2003; Welch & Payne, 2010).

Restorative justice offers an approach that may be effective in decreasing aggressive and bullying behaviors and enhancing positive outcomes for youth, and thereby reducing the incidence of victimization in schools. By repairing relationships, the risk of future victimization may be lessened. Although restorative justice practices have only been sparsely evaluated (Bursens & Vettenburg, 2006; Grossi & de Santos, 2012; Stinchcomb, Bazemore, & Riestenberg, 2006; Wong, Cheng, Ngan, & Ma, 2011) they show promise in being an appropriate strategy to enhance positive youth development outcomes and in reducing episodes of bullying and victimization.

### **Study Purpose**

Early adolescence is a significant developmental time period because of the many physical, emotional, and social changes that occur (Arnett, 1992; Cauffman & Steinberg, 2000; Dahl, 2004; Gardner & Steinberg, 2005). Because these changes often occur during the transition to middle school, rates of bullying behavior (and the accompanying rates of victimization) may increase (Pellegrini & Long, 2002), making prevention and intervention imperative at this

developmental stage. As such, further inquiry into the effects of restorative practices on victimization rates among early adolescents may be particularly useful for advancing the research field focusing on peer victimization. Additionally, as a preventative means, restorative justice's emphasis on fairness, respect, self-efficacy, reconciliation, and belonging may prove influential in enhancing peer interactions and increasing outcomes related to positive youth development. Accordingly, the purpose of the present study is to explore the restorative justice approach and what, if any, effects it may have on reports of peer victimization in a middle school sample. This study also seeks to identify whether the restorative approach has any significant impacts on a set of positive youth development outcomes that are linked to decreases in victimization among school aged youth. The following chapter provides a review of the empirical and theoretical literature pertinent to these stated purposes.

## **Chapter 2: Literature Review and Theoretical Framework**

This chapter is divided into three major sections. The first section explains the findings of major meta-analytic studies that focused on programs to address school-based bullying and victimization. The second section describes the key tenets of adolescent development and positive outcomes sought for youth during this developmental period. In the third section, a more in-depth description of restorative justice is offered, a summary of the theoretical explanations and empirical findings from studies on the use of the restorative approach in schools, and lastly, what remains to be known about restorative approaches and their impact on peer victimization and positive youth development outcomes.

### **Existing Programming**

Over the past few decades, hundreds of anti-bullying interventions have been developed and implemented in schools. The first anti-bullying program, the Olweus Bully Prevention Program, was implemented in Norway in the early 1970s (Olweus, 1997). Since the inception of this first anti-bullying program, various other countries have developed similar school-based programs which focused on social skills building, bystander intervention, classroom based anti-bullying interventions, and approaches to combating the issue of peer victimization involving the whole school (Jenkins, Deemaray, Fredrick & Summers, 2016; Lawner & Terzian, 2013).

**Effectiveness of programs.** The field of research focusing on victimization in schools has benefited from several large meta-analytic studies of school-based anti-bullying programming. Meta-analytic studies compile relevant studies, review their outcomes, and calculate effect sizes and practical significance for the differences seen in these studies. The consensus from much of this research is that certain anti-bullying programming has positive, yet



small effects on reducing bullying and victimization (Ferguson et al., 2007; Jiménez-Barbero et al., 2016; Merrell et al. 2008; Ttofi & Farrington, 2011).

Merrell and colleagues (2008) conducted a meta-analysis on 25 years of anti-bullying studies spanning from 1980 to 2004. Each included study had evaluated an anti-bullying program that used an experimental or quasi-experimental group design. The sample included 15,386 students from K - 12 schools from various European nations and the United States. Effect sizes of all variables included in the study ranged from .04 to 3.81. Researchers found positive effects for about one-third of the outcome variables. These variables included students' knowledge about bullying, their attitudes toward bullying, and the students' self-perceptions and perception of the school community. Researchers found no significant positive or negative effects for the variables that included measures of bullying behavior.

Similarly, Jiménez-Barbero and colleagues (2016) performed a meta-analysis on 14 anti-bullying school programs that were each evaluated using a randomized control trial design. The total sample size for all 14 studies was 30,934 adolescents. Moderate effect sizes were found for the outcome variables of bullying and victimization, with average effect sizes of -0.24 and -0.09 respectively. In regard to students' attitudes toward favoring school violence and bullying, a moderately positive beneficial effect was found ( $d = -0.18$ ). The meta-analysis results showed only a small average effect for the outcome variable of school climate and school wellbeing ( $d = -0.03$ ). Researchers concluded that the programs had a positive effect on students' attitudes and the school climate measures and reduced bullying and victimization reporting, however, these effects were modest.

In another study, Ferguson and colleagues (2007) conducted a meta-analysis on 42 published studies evaluating the effects of school based anti-bullying programs. All of the studies

included in the meta-analysis used some form of control or contrast group design and used random assignment at the individual, classroom, or school level. They found a significant positive effect toward the reduction of bullying for the programs evaluated, but the threshold of the effect did not meet the level of practical significance. A moderator effect was found. The effectiveness of the anti-bullying program was found to be moderated by the degree to which the proportion of students receiving the intervention were considered at risk for future violent behavior. Those populations most at risk appeared to receive the greatest benefit. However, the coefficient of determination was still fairly small for this finding and not substantial enough to draw any definite conclusions.

Ttofi and Farrington (2011) used a systematic review and meta-analytic strategy to determine effect sizes for 53 evaluations of anti-bullying programs. Studies included in their evaluation were limited to those with both intervention and control conditions in some format (i.e. randomized experiments, quasi experimental designs, or age cohort studies). They found that the anti-bullying interventions studied decreased bullying behavior by 20 - 23% and victimization by 17 - 20%. The effects for decreases in both areas were highest in the age-cohort design studies and lowest in the studies employing randomization.

Using a within study design, Yeager and colleagues (2015) were able to evaluate similarly designed interventions that were implemented with different age groups. This within study design allowed for a more accurate comparison than a between study design which merely averages across the ages of program participants. They found that bullying prevention programs had modest positive effect sizes up to the 7<sup>th</sup> grade, however, by 8<sup>th</sup> grade the anti-bullying programs included in the study had a null or zero average effect on students. Using age as a continuous variable, the effect sizes decreased as the ages of the students increased. They

concluded that anti-bullying interventions for students in grades 7 or below were effective to a degree; however, these effects diminished as students aged until the effects eventually became null (Yeager et al., 2015).

The results of these large and comprehensive meta-analyses reveal the positive, yet modest effects found on bullying and victimization rates in schools. Some of these programs have positive effects on reducing rates of bullying and victimization, although the effect sizes are stronger for children grade 7 and younger, leaving a need for programs that are developmentally appropriate and effective with adolescents. The next section provides an overview of the developmental changes that youth undergo during the period of early adolescence.

### **Adolescent Development**

Adolescence is a time of transition, rapid growth, and change in a youth's biological, cognitive, and affective systems and these developmental changes are important issues to take into account when discussing interventions addressing peer victimization and bullying (Espelage & Swearer, 2003). Adolescence can be defined as a critical period of reorganization for many of youths' biological systems. This sensitive period of change and reorganization creates opportunities for risk as well as opportunities for growth (Steinberg, 2005). In past decades, much of the research literature regarding adolescence focused on a "storm and stress" model and described the adolescent period as one wrought with challenges and unparalleled problematic behavior. However, as Arnett (1999) asserts, researchers should reassess these past theories and instead consider the myriad of recent evidence that most youth are able to rise above the challenges of the adolescent period. Many youth follow a pattern of normative development with few or no lasting emotional, social, or behavioral difficulties (Steinberg, 1999).

As mentioned, adolescence is a marked period of reorganization of many of the regulatory systems of youth including their cognitive and affective development systems. In his framework, Steinberg (2005) divides adolescence into three distinct periods: early, middle, and late adolescence. During early adolescence, youth may experience heightened emotions, gravitate toward sensation-seeking type behaviors, and favor a reward orientation. In middle adolescence, puberty places youth at a heightened vulnerability of risk-taking behaviors and youth may experience difficulties in regulating their emotions and behaviors. In later adolescence, development in the frontal lobes of the brain lead to greater abilities to regulate affect and behavior (Steinberg, 2005). Understanding these gradient differences in youth as they transition through adolescence can assist in better understanding the development and maintenance of victimizing behaviors.

Because youth develop on individual timelines, this theoretical understanding of adolescent development should be viewed as a gradual and fluid process. The changes that accompany adolescence including possible risk-taking, sensation-seeking, and unregulated cognition and affect need not be viewed as psychopathology. Any psychopathology or vulnerability during adolescence can be understood as caused likely by delays between the coordination of development in emotion, cognition, and behavior and need not be seen as permanent necessarily (Steinberg, 2005). As Dahl (2001) puts it this early period of adolescence can also be described as “a situation in which one is starting an engine without yet having a skilled driver behind the wheel”. This elucidates a greater understanding of youth who victimize others. This type of aggressive, inappropriate behavior may be the result of a lack of regulation of the youth’s emotions and cognition and can be resolved in part by greater supervision by

strong role models. As well, youth can benefit from being taught the skills they need to regulate their emotions and think critically through decisions rather than acting impulsively.

Lastly, notably important in Steinberg's framework is the idea that development during adolescence is a complex process which arises at a critical time. This lengthy process coincides with a time period when adolescents face new social situations and have strong emotional experiences. All of this should be accounted for when evaluating youth's sometimes seemingly erratic, emotion driven or risk-taking behavior. Interventions should be established which consider the learning curve necessary for the development of competencies in emotional regulation (Steinberg, 2005).

These aforementioned changes in cognition and affect along with the biological, social, and environmental changes that youth undergo during the period of adolescence will be described in further detail in this next section.

**Biological, cognitive, and psychological development.** Biologically, in the early adolescent years, youth grow toward their full height, develop secondary sexual characteristics, become reproductively mature, and gain adult levels of bone growth, hormones, and other physical attributes (i.e., facial hair, deepening voice) (Dahl, 2004). Even in early adolescence, youth begin to physically resemble adults much more than children. However, emotionally and cognitively young adolescents should not be treated the same as adults as the adolescent brain is still under development (Dahl, 2004; Gardner & Steinberg, 2005; Giedd et al., 1999).

Findings from neuroscience indicate that some areas of the brain structure are even less well developed in young teens than what was previously believed (Giedd et al., 1999; Sowell, Trauner, Gamst, & Jernigan, 2002). Certain parts of the brain, such as the frontal cortex, frontal and parietal lobes, and temporal lobe are still developing and maturing during the adolescent

stage, which can affect youth's decision-making, impulse control, and judgment (Arnett, 1992; Cauffman & Steinberg, 2000; Gardner & Steinberg, 2005; Giedd et al., 1999). The cognitive components of brain functioning are simultaneously developing alongside the affective components. However, it is important to note that it is the integration of these two components – cognition and emotion – that fully mature last (Dahl, 2004).

At the same time these cognitive abilities are developing, new sexual urges and heightened impulses toward aggression emerge in the adolescent body (Puzzanchera, 2009). It is this combination of budding cognitive development, heightened sensitivity, and an increase in hormones that places young adolescents at risk for engaging in more erratic, emotionally driven behavior (Arnett, 1992; Dahl, 2004; Hooper, Luciana, Conklin, & Yarger, 2004).

This more emotionally charged behavior is exhibited in adolescents' poorer resistance to peer pressure (Gardner & Steinberg, 2005), lack of future orientation (Grisso et al., 2003), and weaker impulse control (Cauffman & Steinberg, 2000; Luna, Garver, Urban, Lazar, & Sweeney, 2004). This combination of lower inhibition and stronger impulses may lead youth to engage in riskier and/or impulsive behavior without regard for long-term consequences.

These behaviors combined with aforementioned characteristics of this early adolescent stage may then place youth at a heightened risk for being victimized by their peers (Guerra et al., 2011). For example, youth who lack future orientation and have diminished impulse control may negatively respond to acts of aggression, both advertent and inadvertent, directed towards them. This propensity to impulsively react may increase youths' likelihoods of becoming targets of aggressive behavior from peers. Also, as youth biologically develop on different time frames, youth smaller in size and/or those developing later than their peers may be at greater risk of victimization (Guerra et al., 2011). These possible predictors, which are more prevalent in

adolescence, may contribute in part to the peaks in bullying and victimization seen in the literature during this developmental time period.

Subsequently, as youth continue to mature biologically and cognitively, they also seek greater autonomy and independence (Gregory, Cornell, & Fan, 2010). Adolescents are also more likely than younger children to express resistance to suggestions made by adult authority figures when they are offered without regard for the autonomy of the youth (Grandpre, Alvaro, Burgoon, Miller, & Hall, 2003; Henriksen, Dauphinee, Wang, & Fortmann, 2006). As youth further develop they seek greater opportunity to establish their own personal goals and engage in greater decision making with less adult supervision (Ruck, Abramovitch, & Keating, 1998). In fact, research suggests that as youth transition to adolescence they place greater emphasis on their peers' suggestions and recommendations when making decisions rather than on the input of their parents or other adult authority figures (Eccles, Wigfield, & Schiefele, 1998; Steinberg, 2010). Curtin (2005) found these same ideas reflected in the middle school classroom. Students were in favor of classroom leadership and discipline styles that encouraged student input, promoted choice, and promoted a sense of democracy in the way the classroom was run and managed.

Adults and authority figures in the school setting need to be cognizant of the changes that youth are undergoing during this period. Additionally, school programming geared toward reducing victimization and enhancing positive youth outcomes need to account for the fact that youth are striving for more independence, while simultaneously still developing key areas of the brain and skills that they need to be successful in their decision making and actions. Therefore, programming may benefit from allowing for youth choice, autonomy, and input, while also creating an environment of support and structure to help youth as they continue to develop. If this balance between autonomy and supervision is struck, there lies the possibility for schools to

enhance youth's leadership and management capabilities which can promote positive changes in youth and in the overall school environment.

**Environmental changes.** The biological and cognitive changes that early adolescents experience often correspond with social and environmental changes. For many middle school students, the setting and structure of the school day changes as they transition from an elementary to middle school setting. In the transition to middle schools, students shift from being the oldest and most dominant group in the elementary building to being the youngest and to some degree "least powerful" (Pellegrini & Long, 2004). Additionally, this may be students' first experience with transitioning classrooms throughout the day. The number of adults in their life increases, but the quality and depth of interactions and connections with adults decrease (Pellegrini & Long, 2004). Changes in youths' environment and routine suggest that transitioning to a new environment may increase youths' risk for relational difficulties and possibly issues with peer victimization.

**Social development.** For many adolescents, this period can be a time of great change in their interpersonal relationships and experiences with new and challenging social situations. For adolescents, their focus shifts from wanting to please parents or teachers to wanting to fit in and impress peers (Eccles et al., 1998; Steinberg, 2010). This transition period often demands that adolescents seek new friendships as they begin to lose old ones (Pellegrini & Bartini, 2000). Peers play a powerful role and the interactions youth have with their peers can be risk factors of victimization or serve as protective factors against victimization (Pellegrini, 2002; Pellegrini & Bartini, 2001). Risk factors involving peers that lead to a greater likelihood of bullying victimization are competitions between peers, being disliked by peers, and new social roles and hierarchies that create power imbalances (Pellegrini, 2002; Pellegrini & Bartini, 2001). As peer



groups change, especially in the school setting when students are relocated from their elementary school settings to a combined middle school, bullying behavior may increase as a means to enhance social status which puts students in the “out-group” at greater risk for victimization (Jones, Haslam, York, & Ryan, 2008). Strategies developed to deal with issues related to aggression and peer victimization must then be sensitive to these social changes and consider adaptations to programs that address these specific needs and changes.

Overall, the issue of peer victimization is a multi-faceted problem that has many causes and contributors. However, approaches implemented in middle schools where students transition to a new environment and deal with changes in their interpersonal relationships may require an increased emphasis on healthy and positive peer interactions which may in turn have greater influence on reducing victimization levels. For purposes of this study, only a few of the many factors that have shown to be important components in enhancing peer relationships will be discussed. These factors include empathy, cooperative behavior, and school connectedness. These positive youth development components will be discussed and connections drawn to their association with decreasing peer victimization in the school setting.

### **Positive Youth Development Outcomes**

**Empathy.** Empathy can be defined as the ability to take another’s perspective and gain an understanding of another individual’s emotional state (Jolliffe & Farrington, 2004). Empathy has been linked in the literature to a number of positive outcomes including enhanced prosocial attitudes and behavior, social closeness, and well-being (Jolliffe & Farrington, 2004; Morelli, Lieberman, & Zaki, 2015).

Empathy has also been shown to play important roles in the quality of peer relationships and reducing the likelihood of victimization by inhibiting development of aggression toward

others (Eisenberg, Spinrad, & Sadovsky, 2006; Robinson, Roberts, Strayer, & Koopman, 2007). Sahin (2012) used an experimental design to test the effectiveness of empathy training on the bullying behavior of students in the 6<sup>th</sup> grade. Thirty eight students were randomly assigned into two treatment groups and two control groups. Sahin found that students in the experimental group that received empathy training increased in their empathy skills and significantly decreased bullying behavior as compared to students in the control group.

Kokkinos and Kipritsi (2012) conducted a study using a cross-sectional survey design with 206 6<sup>th</sup> grade students. A hierarchical multiple linear regression was used on data collected from students regarding their bullying victimization experiences and empathy levels. They found that reduced empathy is directly related to several forms of victimization (physical, verbal, relational) confirming their hypothesis that being unable to recognize and understand the emotions of others may lead to involvement with peer rejection and victimization.

Empathy has also been shown to have an indirect effect on bullying behavior through its ability to enhance the quantity and quality of friendships among youth. Research has shown increases in empathy in males are associated with increases in the number of friendships created. For both genders, as empathy levels increase the perception of support or quality of friendship within existing friendships increases (Ciarrochi et al., 2016). These findings are important in that research has shown that that ability to befriend others and the number and quality of friendships a youth has are protective factors in preventing them from becoming victims of their peers (Akos & Galassi, 2004; Pellegrini, 2002; Pellegrini & Bartini, 2001).

**Cooperation.** Cooperation with peers is a key social skill. Cooperation can be defined as “acting together in a coordinated way, in pursuit of shared goals” (Argyle, 1991, 4). The concept of cooperation as an anti-bullying intervention means was first introduced by Cowie, Smith,

Boulton, and Laver (1994). Cowie and associates (1994) theorized that encouraging more cooperative attitudes and behaviors among students in the classroom during every day learning could lead to enhanced social skills and interpersonal relationships in the school day and fewer incidents of victimization among students. Cowie & Berdondini (2001) found that victims of bullying involved in a cooperative group work intervention over the span of 8 months were able to express their feelings of enjoyment to a greater degree in the group and expressed less fear of their peers over time. In the same study, both bullies and victims increased their expressions of awareness of the feelings of others (Cowie & Berdondini, 2001).

On the other hand, research has shown that a lack of cooperation is associated with increases in bullying and victimizing behaviors (Rigby, Cox, & Black, 1997). Rigby and colleagues (1997) studied the relationship between student reported level of cooperativeness and involvement in bullying, both bullies and victims. The sample was composed of adolescents (13 to 17 years of age) from two schools. The first school was located in a middle class area and the second school was in a predominantly lower socioeconomic area. Using multiple regression analyses, the researchers found that lower levels of cooperativeness were associated with increases in bullying behavior in both genders at the two schools. Additionally in both schools, lower levels of cooperativeness reported by both genders were associated with higher frequency of victimization (Rigby, Cox, & Black, 1997).

Schools that support cooperative learning have shown student outcomes of markedly decreased discipline and behavioral issues (Lewis, Schaps, & Watson, 1996). Schools have reached the goal of creating more cooperative learning communities through adhering to a set of guiding principles. These principles include establishing warm, supportive relationships, incorporating a challenging curriculum that allows for constructive learning by students,

emphasizing intrinsic motivation, and giving attention to the social and ethical dimensions of learning (Lewis et al., 1996). Emphasizing cooperation over competition can eliminate power differentials in classrooms and create more equitable environments for all students which contributes to fewer incidents of victimization among peers.

**School connectedness.** School connectedness is defined as the degree to which a student feels safe and experiences a sense of caring and closeness to teachers and the greater school community (Bonny, Britto, Klosterman, Hornung, & Slap, 2000). School connectedness has shown to promote positive educational and health outcomes for youth (Centers for Disease Control and Prevention, 2009). For example, greater school connectedness has been associated with adolescents' future orientation, decreases in likelihood of depression during adolescence, and higher academic achievement (Crespo, Jose, Kielpikowski, & Pryor, 2013; Niehaus, Rudasill, & Rakes, 2012; Shochet, Dadds, Ham, & Montague, 2006).

For the issue of peer victimization, research has shown that low school connectedness is a predictor of physical aggression and for becoming a victim of one's peers (Haynie et al., 2001; Skues, Cunningham, & Pokharel, 2005). Among high school students, Skues, Cunningham, and Pokharel (2005) found that lower levels of school connectedness and fewer bonds with peers and school teachers were associated with being a victim of bullying. Among middle and high school students, O'Brennan & Furlong (2010) found that students with higher levels of school connectedness were at a reduced risk of being reported as victims of physical, verbal, and relational victimization. In sum, the strength of relationships and connection students have to the school environment plays a major role in dealing with the issue of peer victimization.

Empathy, cooperation, and school connectedness are all important components linked to healthy developmental, social, and academic outcomes for youth. They have also been found to

be protective factors against peer victimization (Kokkinos & Kipritsi, 2012; O'Brennan & Furlong, 2010).

The next section describes the restorative approach and explains how this intervention may be especially promising for adolescents in terms of addressing the important developmental needs of the adolescent period and how this approach may also leverage the positive youth development indicators of empathy, cooperation, and school connectedness that mitigate the risk of victimization in middle school.

### **The Restorative Approach**

Restorative justice emerged as an approach to criminal justice in the late 1970s as a response to the victims advocate movement (Choi, Bazemore, & Gilbert, 2012). One of its most distinguishing features is its view of crime as a violation of human relationships (Zehr, 1990). The work of restorative justice seeks to bring together the victim(s), offender(s), and community members to repair the harm done through empowering the victim, holding the offender accountable, and facilitating emotional and social healing (Van Ness & Strong, 2010; Zehr & Mika, 2004).

A large part of the victim empowerment process is the responsibility that the community has to respond to the needs of the victim (Dorne, 2008). These needs are defined and voiced by the victims themselves. Restorative justice emphasizes open dialogue and a free flow and exchange of information (Cameron & Thorsborne, 1999). Through victims voicing their needs and concerns, offenders are able to learn about the consequences and detrimental effects of their actions. The offender, through the support of the community, is obliged to restore that which was lost and harmed to the degree possible.

For the restorative justice process to even begin, the offender must take responsibility for their actions and be willing to carry out obligations. Obligations are created for the offender to make things right as much as possible (Dorne, 2008). The restorative paradigm is based on the ideals of repair and reconciliation (Zehr, 1990). The idea is to shame the actions of the offenders and not the offenders themselves. The goal is to come to a consensus on how the offender can heal the harm in a way that satisfies all involved and will allow the offender to be reintegrated back into the community.

The community, which may be composed of professionals, mediators, family members of the offender and victim, and other invested stakeholders, are involved as meaningfully as possible to help meet the victim's needs (Zehr & Mika, 2004). This involvement includes expressing any hurt they experienced, explaining how they were affected by the offender's actions, providing support to the victim and offender, and participating in the development of a resolution or consensus about how to move forward past the harm (Zehr & Mika, 2004).

### **Restorative Interventions in Schools**

In the school setting, restorative practices are implemented as a means of restoring a sense of community when harm has occurred. The same goals mentioned previously in the restorative approach apply to the school setting including respect, sense of democracy, voluntary participation, reintegration, reconciliation, and resolution. The goals for the victim, offender, and surrounding community are achieved through informal and formal practices (Dorne, 2008; Van Ness & Strong, 2010; Zehr, 1990; Zehr & Mika, 2004)

**Informal practices.** The main informal practices that comprise the restorative approach include the use of affective statements, restorative questions, small impromptu conferences, fair process, and reintegrative management of shame (Acosta et al., 2016). Affective statements are

commonly referred to as “I” statements. The use of such language allows for individuals to become aware of the consequences (both positive and negative) that their behavior may have on another person. These types of personal affective statements also allow for the free expression of feeling and emotions. Restorative questions are a tool for adults to use to address incidents of harm. Specific examples of restorative questions include: “What was the harm? How has it impacted you? What needs to happen to make things right?” (Acosta et al., 2016).

An impromptu conference is a restorative practice that involves bringing together the feuding parties. In these small conferences, individuals are brought together one-on-one. Affective statements and restorative questions are employed to have the offender come to understand the harm to the victim and to commit to an action to repair the harm as much as possible. Reintegrative management of shame is employed in these conferences as well, which is the principle that it is the offender’s behavior to be acknowledged as wrong and not the individual. In other words, the offenders are held accountable for the harm they have caused and their actions are recognized as wrong; however, the offenders themselves are respected throughout the entire process (Acosta et al., 2016).

Lastly, fair process is a more informal practice that is used throughout daily interactions between students and teachers and is a critical component of any restorative intervention. Fair process means that adults allow students to have input into decisions, explain the reasoning behind decisions, clarify expectations for students, and make clear the consequences of not meeting behavioral and other expectations. This process creates a shared space of security and a sense of democracy and fairness throughout the school community (Acosta et al., 2016).

**Formal practices.** The restorative approach as applied to the school setting also involves a number of formal practices. These include: proactive circles, responsive circles, and restorative

conferences (Acosta et al., 2016). Proactive circles ideally comprise the majority of the face to face interactions that occur. These circles are opportunities for classes and other small groups to set behavioral expectations and discuss important topics. They are proactive in the sense that the circles take place before any misbehavior and the goal is to prevent issues from arising (Acosta et al., 2016).

Responsive circles and restorative conferences are employed after a harm or dispute has occurred (Zehr, 1990). Responsive circles can involve an entire class or a group of students in response to misbehavior or tension. Restorative questions and affective statements are used during these encounters. Resolutions are sought and everyone in the circle participates. Restorative conferences are used in response to greater harm. They involve a fewer number of individuals and require planning and preparation. A trained facilitator runs the restorative conferences where victims are able to voice their concerns and needs, offenders take responsibility for their wrongdoing, and reconciliation and resolution is sought through the support of the community (Acosta et al., 2016).

Promoters of restorative justice posit that it is through these informal and formal practices that relationships are repaired and reconciliation is achieved. The underlying theories and mechanisms applicable for how this repair and reconciliation are reached are discussed next.

### **Theory of Restorative Justice's Influence on Students**

Two of the major theories underlying the restorative approach are social identity theory and reintegrative shaming theory. These theories will be discussed in terms of how they explain the influence and impact of restorative practices on youth in the school setting.

In social identity theory, self-worth is conceptualized as having two separate, but interrelated components of individual and community (Tyler, 1998). The community component



for students is the school. It is theorized that as a youth's self-worth increases, their sense of community pride increases and, as a result, they are more willing to work cooperatively within the community (school) and abide by social norms and rules (Morrison, 1999). On the other hand, students that victimize other students may hold lower evaluations of themselves and feel less connection to the community. As this sense of identity breaks down, the school community is no longer held as a positive reference group and they likely identify to a lesser degree with the school community (Tyler, 1998). Additionally, Tyler (2013) found that social motivations drive individuals to work cooperatively in groups and abide by norms much more than other outside incentives or sanctions. It was found that two critical components are most often present when individuals hold a positive view of a group and choose to cooperate within the group, namely, the implementation of fair process procedures and authentic and kind behavior being exhibited by group members (Tyler, 2013).

It is the formal and informal practices of the restorative approach that seek to enhance the self-worth of students and seek to maintain the school environment as a positive referent in the minds of the students. For example, as teachers incorporate the use of fair process into the classroom, students are encouraged to give input, which is then incorporated into future decisions and plans. Students feel valued and respected as their opinions and preferences are solicited and incorporated into the learning environment. As the theory proposes, the use of these fair process procedures can increase cooperation in the classroom and strengthen social ties students have in the classroom. This respect for autonomy and valuing of student input and feelings is also seen through the use of affective statements and restorative questions during daily interactions in the classrooms and during circles and conferences. This same process of

enhancing students' self-worth and forging a stronger connection to the community has the ability to enhance students' school connectedness and levels of peer cooperation.

Another means through which restorative practices strive to enhance the self-esteem and social identity of students is through the use of reintegrative management of shame. Throughout the discipline process students may inherently feel ashamed, experience lower feelings of self-worth, and experience a sense of disconnection from others. The restorative justice approach to addressing disciplinary issues is largely based on Braithwaite's reintegrative shame theory (Braithwaite, 1989). In his work, Braithwaite (1989) theorizes that shame is a critical component in regulating social behaviors. Shame is categorized as either adaptive or maladaptive. Maladaptive shame is prominent in the act of stigmatized shaming, which occurs when a person and their acts are both given negative labels. It is from this type of stigmatizing shame that students may experience feelings of lower self-worth and disconnection from others.

On the other hand, the adaptive use of shame is incorporated into reintegrative shame management. This type of shame management is when a person's acts are labeled as wrong, but the individual themselves is respected (Braithwaite, 1989). Through the proper use of adaptive shame, a student responsible for victimizing others can be held accountable while also maintaining a positive sense of self and connection to the community. The offender comes to understand their wrongdoing and how their actions affected others, experiences an increase in empathy towards their victims, makes amends, and then the shame towards the action is discharged as the individual is reintegrated back into the community. It is through maintaining social relationships throughout the rehabilitation process that harm and relationships are able to be repaired (Bazemore, 1999; Braithwaite, 1989).

The next section highlights the outcomes from studies of schools that implemented a restorative justice approach.

### **Outcomes of Restorative Justice in Schools**

Restorative practices were first implemented in schools in Australia in 1990 and have since spread to many nations, including New Zealand, England, Scotland, South Africa, Canada, and the United States (Daly & Hayes, 2001; Karp & Breslin, 2001). This section presents the outcomes from studies evaluating the effectiveness of these practices in the school setting.

**Responsive circles in Brazil.** In Porto Alegre, Brazil, teachers and school professionals at four schools were trained to implement responsive circles to address major conflicts. The majority of the conflicts in this study centered on bullying (70%) with other situations involving property damage, stealing, drugs, and verbal abuse against teachers. A total of 113 elementary students, 45 high school students, and 242 teachers completed survey questionnaires. Four focus groups were conducted with 32 students and 8 teachers participated in individual interviews (Grossi & de Santos, 2012).

Based on data gathered from the interviews and focus groups, 80% of students and teachers indicated a high rate of satisfaction with the responsive circle process (Grossi, Aginsky, & Grossi, 2010). Students, including both bullies and victims, reported feeling respected, listened to, and experiencing a greater sense of calm, unity, and understanding. Teachers reported reductions in behavioral referrals and suspensions, an increase in the integration of restorative values (i.e. cooperation and respect) in student-teacher interactions, and improvement in the overall school climate. Teachers echoed students' reported positive feelings about the restorative justice training they had received and interventions put into place (Grossi et al., 2010).

This small scale, predominantly qualitative report of how responsive circles were received and dealt with conflict shows promising results. Teachers reported new ways and skills for working through conflict. With 70% of the conflicts addressed in the responsive circles involving bullying situations, this study provides some preliminary evidence that circles can be held bringing together victims and bullies and addressing the conflict in a way that all parties leave reporting a high degree of satisfaction (Grossi & de Santos, 2012).

**Responsive circles in Minnesota.** All schools interested in participating in the restorative initiative in Minnesota were given flexibility to decide which components of a restorative justice approach best fit within their school. A majority of the schools chose responsive circles (Stinchcomb et al., 2006). The case study of the South St. Paul district, which included 3 schools, was longitudinal in nature (across 3 years). A majority of the school staff (60-70%) was trained on the use of responsive circles, as well as some students. Cases or incidents at school that were referred to a circle included classroom incidents of petty harassment, fighting, bullying, vandalism, sexual and racial harassment, assault, theft, and arson (Stinchcomb et al., 2006).

Pre- and post-test data were gathered from two elementary schools and one junior high school. After responsive circles were adopted into practice, one elementary school saw behavioral reports for physical aggression decrease from 7 to 2 or fewer per day. Acts of physical aggression in total at that school declined over the course of the three-year study from 773 in the first year to 153 in the third. Similarly, in-school suspensions decreased from 126 to 42 and out-of-school suspensions dropped from 30 to 11 over the three years. Conversely, the other elementary school included as part of this study actually saw in-school suspensions increase over the course of the study. This may have been attributed to the policy that required

the student be removed from the classroom if they were caught engaging in what the school referred to as bottom line behavior (i.e., menacing language, temper tantrums, weapon possession, and physical fighting). Out-of-school suspensions decreased however, through the use of responsive circles and in-school suspensions as an alternative to out-of-school suspension. The junior high school saw a considerable decrease in the number of out-of-school suspensions over the three years from 110 to 55. Given that in-school suspension was not an option in this junior high, this drop in out-of-school suspensions is significant (Stinchcomb et al., 2006). The results, at least preliminarily, suggest that restorative measures may be useful in reducing punitive responses, such as in-school and out-of-school suspensions. However, more in depth program evaluations are needed as well as studies using qualitative approaches to understand the significance of these changes and the mechanisms that brought about the reductions reported.

**Restorative group conferences in Belgium.** From October 2002 to March 2004, 9 schools in the Flemish Community in Belgium held 14 restorative conferences (Burssens & Vettenburg, 2006). The schools were part of an effort to evaluate the potential of restorative group conferences to deal with serious offenses in secondary schools such as thefts, bullying, and vandalism. These conferences were held after an incident of wrongdoing and were led by a trained facilitator with the victim, the offender, and other community members present. A dozen school counselors and staff members were professionally trained as restorative conference facilitators. Data were gathered through observation of 11 restorative conferences, surveys, and through individual interviews held with 62 participants (14 victims, 9 offenders, 9 parents of offenders, and 30 supporters of victims or offenders). Specific demographic information for the sample was not provided (Burssens & Vettenburg, 2006).

Ninety-two percent of the respondents said they prefer restorative group conferencing over traditional punitive measures for dealing with serious offenses. Of 34 survey respondents, 30 answered “very positive” or “extremely positive,” in response to their experience with the restorative conferencing. The 14 victims that participated in individual interviews all expressed that their needs had been met. The 9 offenders reported feeling no humiliation during the conference. In response to hearing about the harm they had caused, 4 offenders reported “feeling bad” and 5 reported feelings of “moderate to great compassion” for their victims. The majority of the offenders felt heard and included in the conferences and they committed to the restorative plan. These plans included sanctions, as well as agreements toward preventing future incidents of similar issues. The sanctions entailed having the offender repair, as much as they could, the harm that was done, deliver apologies to those affected, and to find ways to move forward in continuing to attend school with those they had harmed. However, two offenders expressed reservations that they had not been fully included in the restorative plan and that their voices were given less influence in the conference (Bursens & Vettenburg, 2006). Lastly, all of the restorative group conferences were reported to have “eased or even eliminated tensions within a class or school and normalized the school situation” (Bursens & Vettenburg, 2006, p. 12).

This study’s outcomes suggest that participants of restorative conferences, both victims and offenders, can be satisfied by these intervention measures. Victims reported having their needs met and offenders reported a sense of dignity that remained for them during the restorative conferencing (Bursens & Vettenburg, 2006). Furthermore, the inclusion of supporters of the victim and offenders, including parents, teachers/staff, and other community members, is similar to that which has been identified as an effective component for anti-bullying intervention programming (Ttofi & Farrington, 2011).

Similar to the Grossi and de Santos (2012) evaluation of restorative practices in Brazil, this study was exploratory and lacked any type of experimental design; therefore, no causal inferences can be made. Additionally, given the particular context and the small sample size, the generalizability to other school contexts requires replication of the study with larger and more diverse study samples. One thing that can be preliminarily concluded is that participants were satisfied with their experiences in the restorative conferences. Through these qualitative, subjective reports, both victims and offenders reported being satisfied with their experience and having had their issues at hand resolved. However, no long-term outcomes were reported such as reports of offender recidivism and there were no objective measures reported.

**Pilot approach in Australia.** Thirty students (ages 10-11 years) in a primary (elementary) school in Australia participated in a restorative justice program designed as an early intervention program to prevent bullying at school (Morrison, 2002). This initial pilot program used two different sessions of students that met for 2 hours weekly for 5 weeks. In these sessions, students learned about basic restorative justice principles such as acknowledging wrongdoing and taking responsibility, repairing harm, and caring for others. Students learned these principles through active participation in poster making, role plays, and video watching and discussions. Teachers and other school personnel were encouraged to have the students practice these skills outside of the learning sessions. This type of restorative approach is a bit more comprehensive than previous studies where single intervention components were employed (Morrison, 2002).

Quantitative measures were gathered through surveys that were administered to students and workshop facilitators at the beginning and end of the program (pre- and post-test). Students

were asked questions about their perception of safety at school and questions about their shame management strategies (Morrison, 2002).

This pre-posttest study was conducted as a pilot in a single school setting. It is with caution that these results are presented and conclusions drawn due to the fact that there was no control group in this study. Results showed preliminary positive outcomes for the students that participated in restorative justice programming at their school. Students' self-reported perception of safety at school significantly increased from pre to post intervention. Students reported a small increase in the use of adaptive shame management strategies (from 83% to 87%), and a significant decrease in use of maladaptive shame strategies (from 33% using to 20%) (Morrison, 2002).

**Whole school approach in Hong Kong.** The most comprehensive approach that has been evaluated using restorative justice in the school setting to date is in Hong Kong. Wong and colleagues (2011) evaluated the effectiveness of a whole school restorative approach to reduce bullying among students ages 12 to 14 years (50% male). The approach included restorative goal setting, clear instructions to students, team building exercises, and interventions that worked toward building stronger relationships between students, parents, and teachers. Wong et al. (2011) hypothesized that students exposed to the whole school restorative approach would experience less bullying and report increases in self-esteem, caring behavior, and empathic attitudes. For purposes of this study, bullying was defined using the Life in School Checklist and included measures evaluating physical, verbal, and relational forms of bullying.

In this 2-year longitudinal study, Wong et al. (2011) sampled 4 secondary schools in Hong Kong (N = 1,480). All schools were offered formal training in the restorative whole school approach and then formally evaluated after 15 months to determine to what degree they had



implemented the intervention. Of the 4 schools, one had fully implemented a whole school restorative approach, two schools had partially implemented, and one school did not implement the intervention to any degree (control group). Full implementation included actively using restorative approaches, establishing collegiality and positive attitudes toward use of restorative approaches, and setting school goals aimed at using restorative justice for dealing with bullying. Full implementation also required that training be presented to administrators, staff, teachers, students, and parents. The full implementation school also took advantage of external resources and supports to implement the restorative justice curriculum. The two schools that achieved partial implementation of whole school restorative approaches had school administrators that had positive attitudes toward restorative justice approaches and collegiality existed among the teachers and staff. Training was presented to teachers and parents only. These schools also made use of available external resources and staff to implement the restorative justice education curriculum (Wong et al., 2011). Students completed one questionnaire at the start of the study and then were re-administered the survey 15 months later. As an analytic approach, researchers used a within-subject comparison framework and paired t-tests were then used to determine if significant changes occurred over time in each condition (Wong et al., 2011).

The findings in levels of bullying, self-esteem, and empathy varied across the conditions (Wong et al., 2011). Results from the 15-month post-intervention survey showed that in the full implementation group, there were significantly lower levels of bullying and higher levels of self-esteem and empathy as compared to the other groups. Reports of bullying also significantly decreased for the partial intervention groups, however there were found to be no significant changes in self-esteem or empathic attitudes. Bullying behaviors increased in the control group

(Wong et al., 2011). This study provides the first empirical support for a fully implemented restorative whole school approach.

In summary, the published research on the use of restorative measures in schools provides some preliminary data to illustrate that participants are satisfied with the process and disciplinary measures and that incidents of bullying and victimization are reduced after these practices are used. However, the majority of these studies were single case study designs or small scale, qualitative studies with no control or comparison group (Burssens & Vettenburg, 2006; Grossi & de Santos, 2012). Although some studies had explanatory power, the lack of continuity in studied outcomes and survey measures does not allow for a comparison across studies. Only a single study employed a whole school approach and had a comparison group (Wong et al., 2011).

Additionally, no information on implementation or fidelity was provided in the studies that reported formal training of the facilitators of the restorative measures (Burssens & Vettenburg, 2006; Wong et al., 2011). Also, greater understanding of what restorative approaches were used (i.e. restorative conferences, circles) for what incidents would be helpful to identify the measures that may be most effective at combating bullying and victimization specifically (Wong et al., 2011). A majority of these studies employed certain restorative practices with a number of incidents including, but not limited to bullying (Burssens & Vettenburg, 2006; Grossi & de Santos, 2012; Stinchcomb et al., 2006) which creates difficulty in determining what effect these measures had specifically on bullying victimization.

Although promising, there remains much to be researched and evaluated in terms of restorative practices and their potential effectiveness in lowering reports of victimization in schools and in promoting positive youth development outcomes. The field is left to ask for

further evidence to identify if restorative practices significantly influence victimization among various subgroups of students, as well as determine what specific mechanisms of the restorative approach influence changes in rates of victimization and positive youth outcomes. This study seeks to evaluate the relationship between restorative practice interventions and the rate of victimization in middle school settings. This study also aims to identify any positive associations that components of the restorative approach have toward a set of positive youth development outcomes. The research questions and their associated hypotheses that will be examined in this study are listed below.

### **Research Questions & Hypotheses**

- (1) Do reports of peer victimization at post-intervention (Time 2) significantly differ between treatment and control groups?
- (2) What particular components of the Restorative Practices Intervention (RPI) have a significant impact on overall victimization rates?
- (3) What components of Restorative Practices Intervention (RPI) have a significant impact on outcomes associated with positive youth development including empathy, cooperation, and school connectedness?

It was hypothesized that peer victimization rates among treatment group students would be significantly lower as compared to their peers in the control group post-intervention. As for particular RPI components, it was hypothesized that some, if not all, of the intervention components would have significant impacts on decreasing the victimization levels reported by students. Lastly, it was hypothesized that components of the intervention would have significant positive associations with empathy, cooperation, and school connectedness.

## Chapter 3: Methodology

### Design

This dissertation uses data from the RAND study of Restorative Practices Intervention (RPI) to investigate the effectiveness of restorative justice practices on promoting positive youth development and reducing peer victimization in middle school settings. Fourteen middle schools in the State of Maine were recruited to participate in a randomized controlled trial testing of RPI. Whole schools were randomized into two conditions, treatment or control using a stratified sampling technique. Treatment schools received training, support, and consultation on RPI. Control schools did not receive this training. RPI is composed of 11 essential practices that include use of affective statements, restorative questions, small impromptu conferences, restorative circles and conferences, democratic practices, and shame management techniques. These practices are described in detail on pages 23 - 25.

Maine was selected for the location of the study for two major reasons. First, the researchers had an already strong, standing relationship with practitioners and schools implementing positive youth development curricula and practices. Second, although the school sites were spread out geographically across the state of Maine (in rural and suburban settings), the single state location of the school sites allowed for control over any possible state variations in policy, practices, and statewide school administrative procedures.

### Sample

Middle school students (10-to-13 year olds) were the target population for this study. Across the 14 schools, 2,812 students completed initial surveys with a response rate of 83%. For one control group school, data were not available for the student survey at the second time point and therefore, data from this school was not included in the final analysis. The final student

sample was reduced to 2,425. The treatment group was comprised of 994 students and 1,431 students were in the control group.

Schools averaged a student body size of 430 (range from 91 to 921) and each school housed grades 6 through 8. Five of the schools also included primary grades (K – 5). The data did not identify schools by type (K – 8/6 – 8) and therefore it was unknown as to which school type was assigned to which treatment condition (treatment or control group). The schools had an average of 48% of students that were eligible for free and reduced-price lunches. Attendance rates across all campuses averaged at 95% (range from 93% to 99%).

## **Procedures**

Recruitment for the study was conducted through letters addressed to parents/caregivers sent home as part of a ‘beginning of the year’ information packet. Parents were given the opportunity to opt out by contacting the school. Active parent refusal was very low (3%). Youth assent was collected at the time of the survey administration. Seven schools participated in the treatment group during the first half of the study (years 1 and 2).

Data were collected from both teachers and students at the participating schools. Data collection began in the fall of year 1 (2014) with teachers completing the full version of the staff survey. Staff surveys asked about school climate and implementation of restorative interventions and collected teacher demographic information. Staff completed shortened versions of the survey at two other time points (spring 2015 and fall 2015).

Student data for this study were collected at two time points, baseline (Time 1; fall 2014) and end of year 2 of the study (Time 2; spring, 2016). Data were collected via an online student questionnaire. Student surveys contained questions collecting demographic information, students’ perception of the school environment, peer relations, developmental outcomes, and

problem behaviors. Each student was provided with a personalized URL where they could access the survey questionnaires confidentially online. Students not consented received a personalized URL that populated with an online mathematics puzzle to complete.

Dosage and fidelity evaluations were completed throughout the intervention period by teachers. Observations were conducted monthly by researchers at each of the intervention schools as well. Students received \$20 each year for maintaining updated contact information and for completing the surveys. Staff and teachers received \$50 each year for the completion of dosage and fidelity assessments.

For purposes of this study, only data from the student survey are used (fall 2014 and spring 2016). Although teacher data contained information on implementation of RPI practices, this data was not linked with the student outcomes which were the focus of this dissertation study. Without the ability to link teacher/classroom data with student data, this study relied on the responses from the student survey to measure the extent of exposure students' perceived they received during the study period.

### **Protection of Human Subjects**

For purpose of this secondary data analysis, the design, online questionnaire, and consent procedures were reviewed and approved by RAND's Human Subjects Protection Committee and this review and approval was accepted by the University of Kansas Human Research Protection Program. The researcher was granted access to a secure, firewall protected database maintained by RAND. All data downloaded by the researcher from the database were maintained in a secure manner. Unique identifier codes were assigned to participants by RAND and the data file available to the researcher contained only these identifier codes. The file linking identifier codes to personal identifiable information is maintained securely by RAND. At the time of data

collection, study participants and their parents/caregivers were informed that their participation was voluntary and that their consent/assent could be withdrawn at any time.

## **Measures**

All participating students completed measures that gathered demographic characteristics and assessed their victimization experiences, social skills, level of school connectedness, and perception of exposure to RPI. Details on measures regarding the study's dependent variables of victimization and positive youth development outcomes (empathy, cooperation, and school connectedness) are presented first, followed by the measures of RPI, and lastly, information on the control variable measures.

**Peer victimization.** Victimization information was gathered from students using items from the Communities that Care Survey (Arthur, Hawkins, Pollard, Catalano, & Baglioni, 2002; Arthur et al., 2007). The full survey measures an array of risk and protective factors in youth. Analyses were conducted on responses from 172,628 students in seven states and results supported the construct validity of the measures. Additionally, results supported the reliability of the measures across five racial/ethnic groups, four grade levels (6<sup>th</sup>, 8<sup>th</sup>, 10<sup>th</sup>, and 12<sup>th</sup>), and both genders. The survey has been found to be able to predict health and behavior outcomes in youth (Glaser, Van Horn, Arthur, Hawkins, & Catalano, 2005). The items selected from a subscale of the larger survey assessed the frequency of victimization over the past 30 days on a 3 point scale (1 = not at all, 2 = somewhat, 3 = a whole lot). The items asked about victimization by type including: how often has someone hit, kicked, or shoved you (physical victimization); how often have you been taunted, teased, experienced name-calling or been excluded or ignored by others in a mean way (emotional victimization); and how often has someone sent mean emails, text messages, IMs about you (cyberbullying)? For the regression analysis, a global score was created

by averaging responses with greater numeric averages representing greater degree of reported victimization. These three items were also used in the structural equation model to build the latent construct of victimization.

**Positive Youth Development Outcomes.** Students self-reported on their levels of empathy, cooperation, and feelings of school connectedness at both time points (baseline/T1 and post-intervention/T2).

**Empathy.** To measure student empathy a scale from the Social Skills Improvement System-Rating Scale (SSIS) was used. SSIS is a revised version of the Social Skills Rating System. The SSIS was normed on a national sample, with resulting alpha coefficients above 0.70 and test-retest indices ranging from 0.77 to 0.92 (Acosta et al., 2016). Students responded to five items inquiring about their level of empathy. Students were asked: “I feel bad when others are sad; I try to make others feel better; I help my friends when they are having a problem; I try to think about how others feel; I am nice to others when they are feeling bad.” Students responded on a 4 point scale (1 = not true, 2 = a little true, 3 = a lot true, 4 = very true).

**Cooperation.** Items measuring peer cooperation in this study were derived from a scale from the Inventory of School Climate Survey (Brand, Felner, Shim, Seitsinger, & Dumas, 2003). The Inventory of School Climate has been tested across several school samples and has shown internal consistency (typically .70 or above), one year re-test reliability from .67 to .91, and high levels of inter-observer reliability and consistency across groups of students from diverse backgrounds (Brand et al., 2003). Students were asked about their level of cooperation with their peers using four items. Students were asked if: “students in this school are very interested in getting to know other students; students enjoy working together on projects in classes; students enjoy doing school activities with each other; students in this school get to know each other



really well.” Students responded on a 5 point scale (1 = never, 2 = hardly ever, 3 = sometimes, 4 = most of the time, 5 = always).

***School connectedness.*** Students were asked about their level of school connectedness using items derived from a scale of the National Adolescent Health Study. These items have shown strong internal consistency (alpha of 0.78). The school connectedness scale has shown acceptable reliability ( $\alpha = .82$  to  $.88$ ) and concurrent validity ( $r = .44$  to  $.55$ ) across 18 different sociocultural groups (Furlong, O’brennan, & You, 2011). Items included: I feel close to people at this school; I feel like I am part of this school; I am happy to be at this school; and I feel safe at my school.” Students responded on a 5 point scale (1 = strongly disagree, 2 = disagree, 3 = neither agree nor disagree, 4 = agree, 5 = strongly agree).

***RPI exposure.*** The implementation of the daily restorative practices was most comprehensively captured through the student survey. For research Questions 2 and 3, the latent variables composed of the components of RPI were created by student survey responses. The survey items were derived from scales created and used extensively by the International Institute for Restorative Practices. These 15 items asked about use of affective statements, restorative questions, fair process, and reintegrative management of shame. These scales have been tested and shown to have acceptable reliability: affective statements ( $\alpha = .59$ ), restorative questions ( $\alpha = .81$ ), fair process ( $\alpha = .73$ ), and reintegrative management of shame ( $\alpha = .71$ ) (Gregory & Davis, 2013). Students responded on a five point scale (1 = not at all, 2 = rarely, 3 = sometimes, 4 = often, and 5 = always). The individual items for each component are listed below.

***Affective statements.*** Students responded to two items regarding teacher use of affective statements. These items included: “my teachers talk about their feelings” and “my teachers are respectful when talking about feelings.”

***Restorative questions.*** Students responded to five items inquiring about the implementation of restorative questioning in the classroom. These items included the statements: “when someone misbehaves, my teachers respond to negative behaviors by asking students questions; when someone misbehaves, my teachers ask about what happened, who has been harmed and how the harm can be repaired; my teachers are respectful when talking about feelings; when someone misbehaves, my teachers ask questions in a respectful way; and when someone misbehaves, my teachers provide opportunities for those who were harmed to be heard and to have a say in what needs to happen to make things right.”

***Fair process.*** Three survey items asked about the implementation of the concept of fair process. Items that students responded to included: “my teachers ask students for their thoughts and ideas when decisions need to be made that affect the class; my teachers take the thoughts and ideas of students into account when making decisions; and my teachers explain the reasoning behind decisions that affect students.”

***Reintegrative management of shame.*** Students responded to items in regard to the use of reintegrative shame management techniques by their teachers. These four items were: “my teachers listen to what students have to say when they have misbehaved; my teachers avoid scolding and lecturing; my teachers focus on behavior and not whether students are "good" or "bad" people; and my teachers acknowledge the feelings of students when they have misbehaved.”

These items were entered into the structural equation modeling process to create latent variables for each component of RPI. The results of the measurement and structural models are discussed in the results section.

Lastly, students answered demographic questions regarding their race, age, grade in school, and sex.

### **Analysis**

To first examine the relationships among the variables and check for multicollinearity, preliminary correlations were calculated for all the predictor and the outcome variables. Outlier analyses were conducted and univariate indices of skewness and kurtosis were calculated. Missing data were analyzed for any systematic patterns. Lastly, a thorough set of descriptive analyses were conducted on all independent and dependent variables to delineate the relationships among them. After this data preparation was complete and results found the data appropriate for further analysis, the magnitude of the intraclass correlation coefficient was assessed. The description of missing data and results from the intraclass correlation coefficients are provided below.

**Missing data.** For this analysis, missingness of variables ranged in value from 0.6 to 23.1%. Missing data were analyzed for any systematic patterns. For each measure, a dummy variable was constructed to designate whether the data are missing or not. Association between these dummy variables and certain demographic measures were conducted and tested for significance. These tests showed no significant associations, therefore, missing values were assumed to be missing at random. Proportion of missing data on variables is shown in Table 1.

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Table 1

*Percent Missing on Variables*

Variable	Percent missing
Sex (Time 1)	1.4
Age (Time 1)	1.4
Race (Time 1)	3.5
Overall Victimization (Time 1)	0.6
Physical Victimization (Time 1)	0.7
Emotional Victimization (Time 1)	1.0
Cyber Victimization (Time 1)	0.9
Overall Victimization (Time 2)	23.1
Empathy (Time 2)	21.4
Peer Cooperation (Time 2)	19.8
School Connectedness (Time 2)	20.5

Multiple imputation procedures were employed to deal with missing data for the regression analysis. Multiple imputation has been evaluated as a comprehensive means to compute results while incorporating missing data uncertainty (Schafer & Olsen, 1998). STATA's mi command was used. Patterns of missing data were examined among relevant variables for this analysis and included checks for monotone missing within the longitudinal data. There were no significant patterns of missingness discovered.

Twenty-three datasets were created for imputation. The number of imputations was based on the rule created by White and colleagues (2011) which calls for the number of imputed sets to equal the greatest percentage of incomplete cases that exist on any single variable. This process was employed to reduce the error associated with regression coefficients, standard errors, and resulting p-values, as well as increase the ability to reproduce the study's results (White, Royston, & Wood, 2011).

As for the latent variable modeling procedures used to answer the second and third research questions (CFA and SEM), full information maximum likelihood (FIML) was used to

deal with the missing data. Maximum likelihood was selected using the original dataset in STATA's SEM model builder. The maximum likelihood with missing values (MLMV) function which uses full information maximum likelihood techniques was employed. FIML has the ability to adjust the likelihood function so that each existing case of data contributes information on the observed variables. FIML has been found to be an appropriate method even in cases where a large proportion of the data is missing (Little, Jorgensen, Lang, & Moore, 2014). This procedure was also chosen as the data were assumed to be missing at random (MAR) and maximum likelihood is a comprehensive means for dealing with missing data that still allows for enough parsimony to properly model the data and allows for use of a single model with a deterministic result.

**Intraclass correlation coefficient.** When using clustered data, it is necessary to examine the intraclass correlation coefficient (ICC). Students in this study's sample were nested into schools, therefore, creating clusters in the randomized control trial design. The ICC is a measure of the within group variance and the between group variance. Samples with higher ICC's create conditions of lower power for analyses to be conducted (McCoach & Adelson, 2010). The intraclass correlations across samples at Time 1 (ICC = 0.017) and Time 2 (ICC = 0.018) were both very low. This indicated that, although differences between schools were not likely to show statistical significance, the sample had sufficient power to conduct statistical analyses such as regression and conduct latent variable modeling procedures. With the nesting of students into only 13 different schools, the use of a multi-level model was not indicated. However, the nesting of students into schools was accounted for in the analyses through the inclusion of a school identification variable and through the use of a sandwich estimator that accounted for the clustering.

In addition to calculating the ICC, for the regression analysis a power analysis was conducted. The program “PowerUp!” was used to calculate the minimal detectible effect size for the regression analysis. As has been described, the sample for this study is composed of students nested into schools that were then randomly assigned to treatment or control conditions. This type of random cluster assignment creates a situation where study results are internally valid but may have limited statistical power (Bloom, Bos, & Lee, 1999). The minimal detectible effect size for the continuous outcome variable of victimization used in this study is 0.253. According to Cohen’s guidelines (1977, 1988), this is considered a small effect size.

Details of the analyses for each of the three research questions are described next.

**Question 1: Effectiveness of RPI on victimization.** The first research question, “Do reports of peer victimization at post-intervention significantly differ between treatment and control groups?” was answered using regression analysis. Regression analysis was used as a means to predict the outcome variable of victimization while using a single independent predictor variable and multiple control variables. Control variables for this analysis included student age, sex, race, and victimization score at Time 1.

**Question 2: Effectiveness of RPI components on victimization.** The second research question, “What particular components of the Restorative Practices Intervention have a significant impact on overall victimization rates?” was answered using structural equation modeling. Structural equation modeling is appropriate to use when answering questions that involve multiple regression analysis of factors or latent variables (Ullman & Bentler, 2012). Structural equation modeling also allows for the creation of two separate models: a measurement model and structural model. The measurement model displays the relationships between the factors and the created latent variables. The estimation of this model is used to determine how

well the model fits the given data (Ullman & Bentler, 2012). The thresholds for the model fit statistics are available in Appendix A. The structural model is the second component. The structural model is used to estimate the pathways between latent variables and creates the estimates of the regression analyses.

For this model, the components of RPI were modeled using three latent variables. Latent variable modeling procedures were used for this question, as this was the first time these survey items had been used in a randomized controlled trial in the U.S. The creation of a measurement model and subsequent testing of fit allowed for a more thorough analysis of the data fit and appropriateness of its use to answer the research question. The variable of victimization per student report at Time 2 was entered into the model as a latent outcome variable. The control variables of student age, sex, race, and victimization score at Time 1 were included in the model. The paths between each of three latent variables representing components of RPI and the outcome variable were estimated.

**Question 3: RPI components and social skill/PYD outcomes.** The third research question, “What components of Restorative Practices Intervention have a significant impact on outcomes associated with positive youth development including empathy, cooperation, and school connectedness?” was answered also using structural equation modeling. To answer this question a series of structural equation models were created.

A series of models was used instead of a single model for two main reasons. Positive youth development is a multi-faceted construct. Data for this study allowed for an evaluation of only three related components (empathy, cooperation, and school connectedness) of positive youth development. As such, separate models were used instead of combining the three limited constructs to represent the whole construct of positive youth development. Secondly, creating

three separate models allows for a more nuanced evaluation of the specific components of RPI and the impact they may have separately upon each of these three individual positive youth outcomes.

For each of the three models, the components of RPI were entered as three separate latent variables into each model, as well as, the aforementioned control variables. The separate outcome variables of empathy, cooperation, and school connectedness completed the series of models. The measurement models were estimated and evaluated separately to determine the goodness of fit for each model to the data. The structural models were estimated and results were interpreted for each of the three separate outcome variables.



## Chapter 4: Results

In this section, descriptive statistics for the treatment and control conditions are first presented. A regression model is used to answer the first research question. Results from a series of structural equation models are used to answer the second and third research questions. All analyses were conducted in STATA 14.2.

The descriptive statistics for the sample are presented in Table 2. Chi square tests of independence were conducted on all initial measures of the demographic variables and outcome measures to identify any group differences. Results revealed no significant differences between intervention and control groups on the demographic variables of gender, race, grade level, and age. Groups did not differ significantly on reports of cyber victimization at Time 1. However, treatment and control groups did differ significantly on reports of physical victimization ( $F(1, 2,405) = 10.23, p < .01$ ) and emotional victimization ( $F(1, 2,399) = 6.20, p < .05$ ) at Time 1. The mean of physical victimization for the control group at Time 1 ( $M = 1.22, SD = 0.47$ ) was significantly smaller than the mean for the treatment group ( $M = 1.29, SD = 0.55$ ). The mean of emotional victimization for the control group at Time 1 ( $M = 1.49, SD = 0.68$ ) was significantly smaller than the mean for the treatment group ( $M = 1.56, SD = 0.71$ ). Group differences were also evaluated for the positive youth development outcomes at Time 1. Treatment and control groups did not show significantly different levels of empathy, cooperation, or school connectedness at Time 1.

Table 2

*Chi Square Demographic Comparisons by Treatment Condition at Time 1*

	Intervention Group (n = 994)	Control Group (n = 1,431)	$\chi^2$
Gender			$\chi^2 = 1.01$
	Male	21.2% (508)	29.3% (702)
	Female	19.7% (472)	29.7% (709)
Race			$\chi^2 = 10.41$
	American Indian or Alaska Native	1.4% (33)	2.2% (52)
	Asian	0.2% (5)	0.9% (20)
	Black or African American	0.5% (11)	0.7% (16)
	Native Hawaiian/Other Pacific Islander	0.01% (1)	0.2% (4)
	White	34.2% (799)	49.1% (1,148)
	Multiracial	3.1% (72)	3.1% (72)
	Other	1.8% (43)	2.7% (63)
Grade level			$\chi^2 = 0.53$
	6 <sup>th</sup>	20.1% (481)	28.1% (672)
	7 <sup>th</sup>	20.8% (498)	30.9% (739)
Age			$\chi^2 = 6.45$
	10 years or younger	4.2% (100)	7.5% (179)
	11 years	16.7% (400)	22.2% (531)
	12 years	16.7% (400)	23.7% (566)
	13 years	3.3% (78)	5.7% (136)
Physical victimization			$\chi^2 = 13.90^{**}$
	Not at all	31.2% (752)	47.7% (1,148)
	Somewhat	7.5% (180)	10.1% (243)
	A whole lot	2.1% (50)	1.4% (34)
Emotional victimization			$\chi^2 = 6.20^*$
	Not at all	23.2% (558)	36.6% (879)
	Somewhat	12.2% (293)	16.4% (394)
	A whole lot	5.3% (127)	6.2% (150)
Cyber victimization			$\chi^2 = 0.08$
	Not at all	36.2% (870)	52.7% (1,266)
	Somewhat	3.4% (82)	5.0% (119)
	A whole lot	1.1% (28)	1.6% (38)

\* $p < .05$ , \*\* $p < .01$

### Question 1

This section describes the results of the first question, “Do reports of peer victimization at post-intervention (Time 2) significantly differ between treatment and control groups?” Linear regression was used to determine whether assignment to the treatment or control condition was a significant predictor of changes in victimization rates at post-intervention (Time 2). The treatment condition consisted of students in seven schools participating in the Restorative Practices Intervention (RPI).

The regression equation evaluated the significance of treatment or control group membership on overall victimization rates at Time 2 while controlling for student sex, age, race, and overall victimization reported at Time 1. Although the estimated interclass coefficient was low, school membership was added to the model as a means to control for any variance associated with the nesting of students into schools. In addition, a clustered sandwich estimator was used to account for the intraclass correlation present. The overall model explained a small proportion of the variance ( $R^2 = .14$ ,  $F(6, 8.1) = 47.13$ ,  $p < .001$ ). The variable depicting treatment or control group membership did not significantly predict overall victimization scores at Time 2 ( $b = .019$ ,  $t = 0.66$ ,  $p = .526$ ). See Table 3 for regression coefficients. Sex, school membership, and overall victimization scores at Time 1 were statistically significant predictors of differences in victimization scores at Time 2.

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Table 3

*Regression Coefficients Predicting Overall Victimization at Time 2*

	<i>B</i>	<i>SE(B)</i>	<i>B</i>
Treatment group	0.019	0.029	0.035
Sex	0.051*	0.022	0.055
Age	-0.013	0.014	-0.022
Race	0.016	0.011	0.011
School	-0.005*	0.002	-0.071
Victimization at T1	0.379***	0.027	0.369

$p < .05^*$ ,  $p < .001^{***}$

Three additional linear regression analyses were conducted using a clustered sandwich estimator to determine if group membership predicted victimization by type (physical, emotional, and cyber) at Time 2 while controlling for student sex, age, race, school membership, and overall victimization reported at Time 1. Treatment group membership was not found to be a significant predictor of victimization by type. Regression coefficients for these analyses are shown in Tables 4 - 6.

Table 4

*Regression Coefficients Predicting Physical Victimization at Time 2*

	<i>B</i>	<i>SE(B)</i>	<i>B</i>
Treatment group	0.045	0.037	0.042
Sex	-0.075**	0.023	-0.070
Age	-0.019	0.013	-0.035
Race	0.012	0.008	0.015
School membership	-0.004	0.002	-0.043
Victimization at T1	0.308***	0.027	0.242

\*\* $p < .01$ , \*\*\* $p < .001$

Table 5

*Regression Coefficients Predicting Emotional Victimization at Time 2*

	<i>B</i>	<i>SE(B)</i>	<i>B</i>
Treatment group	0.030	0.054	0.020
Sex	0.101*	0.039	0.070
Age	-0.025	0.027	-0.032
Race	0.026	0.023	0.030
School membership	-0.006	0.004	-0.054
Victimization at T1	0.604***	0.029	0.333

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

Table 6

*Regression Coefficients Predicting Cyberbullying Victimization at Time 2*

	<i>B</i>	<i>SE(B)</i>	<i>B</i>
Treatment group	-0.015	0.019	-0.015
Sex	0.123**	0.027	0.136
Age	0.003	0.012	0.003
Race	0.011	0.009	0.017
School membership	-0.004*	0.001	-0.057
Victimization at T1	0.229**	0.048	0.198

\* $p < .05$ , \*\* $p < .01$ **Question 2**

This section presents results from a structural equation model to answer Question 2, “What particular components of the Restorative Practices Intervention have a significant impact on overall victimization rates?” Although the dichotomous group membership variable did not significantly predict differences in reports of victimization, further exploration was taken to evaluate if the individual components of RPI (affective statements, restorative questions, fair process, and shame management) had significant impacts on victimization. The use of structural equation modeling (as described in methods section) allows for a more nuanced exploration of the effect of RPI on victimization. The results of Question 1 indicate there was no significant

difference in victimization reports between treatment and control groups. However, this analysis examined only whether the intervention had an effect on victimization as compared to the control group. The second research question allows for an examination of whether specific components of RPI have an effect on victimization. To answer this second question, the results of the confirmatory factor analysis (CFA) will be presented first followed by the results from the structural equation model (SEM).

**Confirmatory factor analysis.** It was initially theorized the 15 survey items pertaining to RPI would load onto 4 separate factors aligning with the 4 established components of RPI (affective statements, restorative questions, fair process, and reintegrative management of shame) (Acosta et al., 2016). A confirmatory factor analysis was conducted to test the confirmation of these existing four factors. The initial model based off this theory showed unsatisfactory fit ( $\chi^2 = 1598.887$ ; RMSEA = .098[90% CI: .094 – .102]; CFI = 0.899; TLI = 0.873). All model fit statistics thresholds are available in Appendix A. The standardized root mean square residual (SRMR) is omitted, because it is not available with the maximum likelihood function in STATA. The factor loadings for this initial model are available in Table 7.

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Table 7

*Initial CFA Model Factor Loadings*

Variable Name	Factor Loading	Item Statement
<i>Factor 1: Affective Statements</i>		
CRPAS37	.35	My teachers talk about their feelings.
CRPAS49	.72	My teachers are respectful when talking about feelings.
<i>Factor 2: Restorative Questions</i>		
CRPRQ38	.59	My teachers encourage students to talk about feelings when responding to the questions.
CRPRQ39	.49	My teachers respond to negative behaviors by asking students questions.
CRPRQ40	.67	My teachers ask about what happened, who has been harmed and how the harm can be repaired.
CRPRQ50	.80	My teachers ask questions in a respectful way.
CRPRQ53	.78	When someone misbehaves, my teachers provide opportunities for those who were harmed to be heard and to have a say in what needs to happen to make things right.
<i>Factor 3: Fair Process</i>		
CRPFP41	.76	My teachers ask students for their thoughts and ideas when decisions need to be made that affect the class.
CRPFP43	.78	My teachers take the thoughts and ideas of students into account when making decisions.
CRPFP45	.78	My teachers explain the reasoning behind decisions that affect students.
CRPFP51	.66	My teachers clearly state new expectations and consequences if expectations are not met.
<i>Factor 4: Shame Management</i>		
CRPRM44	.77	My teachers listen to what students have to say when they have misbehaved.
CRPRM46	.58	My teachers avoid scolding and lecturing.
CRPRM48	.63	My teachers focus on behavior and not whether students are "good" or "bad" people.
CRPRM52	.79	My teachers acknowledge the feelings of students when they have misbehaved.

Using results from the modification indices, factor loadings, and conceptual knowledge on the topic, modifications were made to the initial model to improve model fit. Item 37 (“My teachers talk about their feelings”) had a factor loading not meeting the minimal threshold ( $< 0.40$ ) and was therefore removed from the model (Hinkin, 1998). With affective statements having only one item and this item cross loading with restorative questions at a significant level, item 49 (“My teachers are respectful when talking about feelings”) was moved to the restorative question factor. This factor was renamed restorative dialogue to include the affective statement element along with the existing items referring to restorative questions. Lastly, item 51 (“My teachers clearly state new expectations and consequences if expectations are not met”) had a high cross loading among all three factors. The purpose of factor analysis used in CFA is to identify groups of variables that are highly associated with each other, however, not highly correlated with other groups of variables (Santor et al., 2011). With high correlations to the other two factors, item 51 was decidedly removed from the model. The confirmatory factor analysis was rerun after these modifications and the model fit statistics are shown in Table 8. Factor loadings for the modified CFA are available in Table 9.

Table 8

*Comparison of Model Fit Indices for Proposed and Modified CFA Models*

	Proposed model	Modified model
$\chi^2$	1598.887	608.342
RMSEA	0.098[0.094 – 0.102]	0.079[0.073 – 0.084]
CFI	0.899	0.952
TLI	0.873	0.934



Table 9

*Modified CFA Model Factor Loadings*

Variable Name	Factor Loading	Item Statement
<i>Factor 1: Restorative Dialogue</i>		
CRPRQ38	.57	My teachers encourage students to talk about feelings when responding to the questions.
CRPRQ39	.47	My teachers respond to negative behaviors by asking students questions.
CRPRQ40	.65	My teachers ask about what happened, who has been harmed and how the harm can be repaired.
CRPAS49	.71	My teachers are respectful when talking about feelings.
CRPRQ50	.75	My teachers ask questions in a respectful way.
<i>Factor 2: Fair Process</i>		
CRPFP41	.79	My teachers ask students for their thoughts and ideas when decisions need to be made that affect the class.
CRPFP43	.81	My teachers take the thoughts and ideas of students into account when making decisions.
CRPFP45	.79	My teachers explain the reasoning behind decisions that affect students.
<i>Factor 3: Shame Management</i>		
CRPRM44	.78	My teachers listen to what students have to say when they have misbehaved.
CRPRM46	.58	My teachers avoid scolding and lecturing.
CRPRM48	.62	My teachers focus on behavior and not whether students are "good" or "bad" people.
CRPRM52	.78	My teachers acknowledge the feelings of students when they have misbehaved.
<i>Factor 4: Victimization</i>		
SBULL56	.63	During the past 30 days, how often has someone hit, kicked, or shoved you, or taken your money or belongings?
SBULL57	.76	During the past 30 days, how often have you been taunted, teased, experienced name calling or been excluded or ignored by others in a mean way?
SBULL58	.53	During the past 30 days, how often has someone sent mean emails, text messages, IM's or posted hurtful information on the Internet about you?

Using the three latent variables created in the modified model of the CFA, the latent variable of victimization was added to the model. The factor loadings for the indicators comprising the latent variable of victimization are available in Table 9. A final CFA was conducted with all independent and dependent measures included and the measurement model showed acceptable fit ( $\chi^2 = 745.947$ ; RMSEA = .065[90% CI: .061 – .070]; CFI = 0.948; TLI = 0.933).

The structural model was built with regression pathways added from the RPI components to the outcome variable of victimization. A figure of the structural model is available in Appendix B. The model fit statistics showed acceptable fit ( $\chi^2 = 1210.734$ ; RMSEA = .053[90% CI: .050 – .056]; CFI = 0.919; TLI = 0.905). However, the model showed that none of the RPI pathways were significant. Estimates for the final model are shown in Table 10. Factor loadings for indicators for each of the latent variables are available in Table 11.

Table 10

*Estimates of Final SEM of Victimization*

Variable	Coefficients	Robust Std. Error	<i>z</i>	95% CI
<i>Independent variables</i>				
Restorative dialogue	-0.248	0.143	-1.74	[-0.529 – 0.032]
Fair process	0.008	0.044	0.19	[-0.077 – 0.094]
Shame management	0.167	0.151	1.11	[-0.129 – 0.463]
<i>Control variables</i>				
Sex	0.041*	0.016	2.52	[0.009 – 0.073]
Age	-0.017	0.010	-1.66	[-0.036 – 0.003]
Race	0.014	0.008	1.74	[-0.002 – 0.031]
School ID	-0.003*	0.001	-2.28	[-0.006 – -0.001]
Victimization at T1	0.305***	0.023	13.29	[0.260 – 0.350]

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

Table 11

*Structural Model Item Factor Loadings for Victimization*

Variable Name	Factor Loading	Item Statement
Factor 1: Restorative dialogue		
CRPRQ38	.59	My teachers encourage students to talk about feelings when responding to the questions.
CRPRQ39	.50	My teachers respond to negative behaviors by asking students questions.
CRPRQ40	.68	My teachers ask about what happened, who has been harmed and how the harm can be repaired.
CRPAS49	.75	My teachers are respectful when talking about feelings.
CRPRQ50	.79	My teachers ask questions in a respectful way.
Factor 2: Fair process		
CRFPF41	.79	My teachers ask students for their thoughts and ideas when decisions need to be made that affect the class.
CRFPF43	.81	My teachers take the thoughts and ideas of students into account when making decisions.
CRFPF45	.79	My teachers explain the reasoning behind decisions that affect students.
Factor 3: Shame management		
CRPRM44	.78	My teachers listen to what students have to say when they have misbehaved.
CRPRM46	.58	My teachers avoid scolding and lecturing.
CRPRM48	.62	My teachers focus on behavior and not whether students are "good" or "bad" people.
CRPRM52	.78	My teachers acknowledge the feelings of students when they have misbehaved.
Factor 4: Victimization		
SBULL56	.61	During the past 30 days, how often has someone hit, kicked, or shoved you, or taken your money or belongings?
SBULL57	.78	During the past 30 days, how often have you been taunted, teased, experienced name calling or been excluded or ignored by others in a mean way?
SBULL58	.52	During the past 30 days, how often has someone sent mean emails, text messages, IM's or posted hurtful information on the Internet about you?

### Question 3

The results of a series of structural equation models are presented to answer the third and final research question, “What components of Restorative Practices Intervention (RPI) have a significant impact on outcomes associated with positive youth development including empathy, cooperation, and school connectedness?” The results of these models are described below.

**Empathy.** For this model, empathy served as the outcome variable. A CFA was fitted for this positive youth development outcome. The overall fit of the CFA including the independent variables and outcome variable was acceptable ( $\chi^2 = 1085.320$ ; RMSEA = .067[90% CI: 0.064 – 0.071]; CFI = 0.944; TLI = 0.933). Factor loadings for the model are included in Table 12 alongside the factor loadings for the structural model that will be described next.

The structural model is shown in Figure 3 in Appendix B. This model contains a regression path between each of the three latent variables representing RPI to the outcome variable of empathy while controlling for student sex, age, race, school membership, and empathy score at Time 1. The overall fit of the final structural model was good ( $\chi^2 = 851.295$ ; RMSEA = .038[90% CI: 0.036 – 0.041]; CFI = 0.963; TLI = 0.957). The model showed that the path between shame management and empathy was significant ( $b = .359, p < .001$ ). Increases in exposure to shame management are significantly associated with increases in empathy. The control variables of student sex and empathy score at Time 1 were also statistically significant in the model. Coefficients for all pathways and their significance are shown in Table 13.

Table 12

*Factor Loadings for CFA and SEM for Empathy*

	Factor loadings		Item statement
	CFA	SEM	
<i>Restorative Dialogue</i>			
CRPRQ38	.59	.56	When someone misbehaves, my teachers encourage students to talk about feelings when responding to the questions.
CRPRQ39	.49	.48	My teachers respond to negative behaviors by asking students questions.
CRPRQ40	.67	.62	My teachers ask about what happened, who has been harmed and how the harm can be repaired.
CRPAS49	.75	.70	My teachers are respectful when talking about feelings.
CRPRQ50	.79	.74	My teachers ask questions in a respectful way.
<i>Fair Process</i>			
CRPFP41	.79	.79	My teachers ask students for their thoughts and ideas when decisions need to be made that affect the class.
CRPFP43	.81	.81	My teachers take the thoughts and ideas of students into account when making decisions.
CRPFP45	.79	.79	My teachers explain the reasoning behind decisions that affect students.
<i>Shame Management</i>			
CRPRM44	.78	.78	My teachers listen to what students have to say when they have misbehaved.
CRPRM46	.58	.58	My teachers avoid scolding and lecturing.
CRPRM48	.62	.62	My teachers focus on behavior and not whether students are "good" or "bad" people.
CRPRM52	.78	.78	My teachers acknowledge the feelings of students when they have misbehaved.
<i>Empathy</i>			
CSSE35G	.78	.79	I feel bad when others are sad.
CSSE35H	.85	.84	I try to make others feel better.
CSSE35I	.72	.73	I help my friends when they are having a problem.
CSSE35J	.78	.77	I try to think about how others feel.
CSSE35K	.84	.82	I am nice to others when they are feeling bad.

Table 13

*Estimates of Final SEM of Empathy*

Variable Name	Coefficients	Robust Std. Error	<i>z</i>	95% CI
<i>Independent Variables</i>				
Restorative Dialogue	-0.070	0.087	-0.81	[-0.240 – 0.010]
Fair Process	-0.025	0.089	-0.28	[-0.199 – 0.149]
Shame Management	0.359***	0.082	4.36	[0.197 – 0.520]
<i>Control variables</i>				
Sex	0.215***	0.035	6.23	[0.148 – 0.283]
Age	-0.019	0.021	-0.89	[-0.060 – 0.023]
Race	0.005	0.013	0.36	[-0.020 – 0.030]
Empathy at T1	0.478***	0.029	16.53	[0.421 – 0.534]
School ID	0.001	0.002	0.55	[-0.003 – 0.006]

\*\*\* $p < .001$ 

**Cooperation.** For this model, cooperation among peers served as the outcome variable. The overall fit of the CFA containing both the independent variables and outcome variable was good ( $\chi^2 = 699.296$ ; RMSEA = .053 [90% CI: 0.049 – 0.057]; CFI = 0.960; TLI = 0.950). Factor loadings for both the measurement and structural model are included in Table 14.

The structural model contained the regression pathways placed from the RPI components to the outcome variable of cooperation. Control variables for student sex, age, race, school membership, and cooperation score at Time 1 were also included in the model. The overall fit of the final structural model was good ( $\chi^2 = 698.011$ ; RMSEA = .036 [90% CI: 0.034 – 0.039]; CFI = 0.963; TLI = 0.956). Model is shown in Figure 4 in Appendix B. Restorative dialogue ( $b = .292, p < .05$ ) was shown to have a significant, positive relationship with cooperation. Increases in exposure to restorative dialogue were found to be significantly associated with increases in cooperation among peers. The control variables of sex and cooperation at T1 were found to be statistically significant in the model as well. All variable estimates for this final structural model are shown in Table 15.

Table 14

*Factor Loadings for CFA and SEM for Cooperation*

	Factor loadings		Item statement
	CFA	SEM	
<i>Restorative Dialogue</i>			
CRPRQ38	.57	.56	When someone misbehaves, my teachers encourage students to talk about feelings when responding to the questions.
CRPRQ39	.47	.48	My teachers respond to negative behaviors by asking students questions.
CRPRQ40	.65	.62	My teachers ask about what happened, who has been harmed and how the harm can be repaired.
CRPAS49	.71	.70	My teachers are respectful when talking about feelings.
CRPRQ50	.75	.74	My teachers ask questions in a respectful way.
<i>Fair Process</i>			
CRFPF41	.79	.75	My teachers ask students for their thoughts and ideas when decisions need to be made that affect the class.
CRFPF43	.81	.77	My teachers take the thoughts and ideas of students into account when making decisions.
CRFPF45	.79	.80	My teachers explain the reasoning behind decisions that affect students.
<i>Shame Management</i>			
CRPRM44	.78	.78	My teachers listen to what students have to say when they have misbehaved.
CRPRM46	.58	.58	My teachers avoid scolding and lecturing.
CRPRM48	.62	.62	My teachers focus on behavior and not whether students are "good" or "bad" people.
CRPRM52	.78	.78	My teachers acknowledge the feelings of students when they have misbehaved.
<i>Cooperation</i>			
CSCPP18	.74	.63	Students in this school are very interested in getting to know other students.
CSCPP19	.47	.53	Students enjoy working together on projects in classes.
CSCPP20	.55	.62	Students enjoy doing school activities with each other.
CSCPP21	.80	.68	Students in this school get to know each other really well.

Table 15

*Estimates of Final SEM of Cooperation*

Variable Name	Coefficients	Robust Std. Error	<i>z</i>	95% CI
<i>Independent Variables</i>				
Restorative Dialogue	0.292*	0.141	2.07	[0.016 – 0.570]
Fair Process	-0.027	0.259	-0.10	[-0.535 – 0.482]
Shame Management	0.130	0.172	0.76	[-0.207 – 0.468]
<i>Control variables</i>				
Sex	-0.099**	0.037	-2.64	[-0.172 – -0.025]
Age	0.006	0.020	0.31	[-0.032 – 0.045]
Race	0.006	0.007	0.94	[-0.007 – 0.020]
Cooperation at T1	0.332***	0.037	8.98	[0.260 – 0.404]
School ID	0.004	0.002	1.72	[-0.001 – 0.008]

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

**School connectedness.** For this last model in the series, school connectedness served as the outcome variable. A CFA was fitted including the independent variables and this outcome variable and the overall fit of the CFA was good ( $\chi^2 = 541.704$ ; RMSEA = .050[90% CI: 0.046 – 0.055]; CFI = 0.971; TLI = 0.962).

Regression pathways were placed from the RPI components to the outcome variable of school connectedness and the control variables (sex, age, race, school membership, school connectedness at Time 1) were added to the structural model. The overall fit of the final structural model was acceptable ( $\chi^2 = 1269.225$ ; RMSEA = .065[90% CI: 0.061 – 0.068]; CFI = 0.923; TLI = 0.911). Model is shown in Figure 5 in the Appendix B. All factor loadings are available in Table 16. No RPI components were shown to have a significant relationship with school connectedness. The control variable of school connectedness at Time 1 was found to be statistically significant in the model. All variable estimates for the structural model are shown in Table 17.



Table 16

*Factor Loadings for CFA and SEM for School Connectedness*

	Factor loadings		Item statement
	CFA	SEM	
<i>Restorative Dialogue</i>			
CRPRQ38	.55	.59	When someone misbehaves, my teachers encourage students to talk about feelings when responding to the questions.
CRPRQ39	.48	.50	My teachers respond to negative behaviors by asking students questions.
CRPRQ40	.62	.68	My teachers ask about what happened, who has been harmed and how the harm can be repaired.
CRPAS49	.70	.75	My teachers are respectful when talking about feelings.
CRPRQ50	.74	.80	My teachers ask questions in a respectful way.
<i>Fair Process</i>			
CRPFP41	.75	.79	My teachers ask students for their thoughts and ideas when decisions need to be made that affect the class.
CRPFP43	.77	.81	My teachers take the thoughts and ideas of students into account when making decisions.
CRPFP45	.79	.78	My teachers explain the reasoning behind decisions that affect students.
<i>Shame Management</i>			
CRPRM44	.78	.78	My teachers listen to what students have to say when they have misbehaved.
CRPRM46	.59	.58	My teachers avoid scolding and lecturing.
CRPRM48	.61	.61	My teachers focus on behavior and not whether students are "good" or "bad" people.
CRPRM52	.78	.78	My teachers acknowledge the feelings of students when they have misbehaved.
<i>School Connectedness</i>			
CSCSC27	.60	.66	I feel close to people at this school.
CSCSC28	.79	.84	I feel like I am part of this school.
CSCSC29	.82	.78	I am happy to be at this school.
CSCSC30	.72	.69	I feel safe at my school.

Table 17

*Estimates of Final SEM of School Connectedness*

Variable Name	Coefficients	Robust Std. Error	<i>z</i>	95% CI
<i>Independent Variables</i>				
Restorative Dialogue	0.488	0.361	1.35	[-0.219 – 1.19]
Fair Process	0.102	0.058	1.75	[-0.012 – 0.216]
Shame Management	-0.103	0.232	-0.45	[-0.558 – 0.351]
<i>Control variables</i>				
Sex	0.012	0.018	0.68	[-0.023 – 0.048]
Age	0.025	0.020	1.23	[-0.147 – 0.065]
Race	-0.003	0.010	-0.30	[-0.023 – 0.017]
Connectedness at T1	0.285***	0.022	12.73	[0.241 – 0.329]
School ID	0.006	0.004	1.60	[-0.001 – 0.013]

\*\*\* $p < .001$ 

In conclusion, positive, significant pathways were found between RPI components and positive youth development outcomes. When evaluating RPI's effectiveness on the outcome of empathy, a significant positive relationship was found with shame management. For peer cooperation, a positive, direct association was found with restorative dialogue.

## Chapter 5: Discussion

Peer victimization is a pervasive problem in U.S. schools that can be detrimental to both the social and psychological development of affected students (Hawker & Boulton, 2000). Although there are many anti-bullying programs focused on the issue of peer victimization, studies have shown these programs have only limited positive effects (Evans et al., 2014; Ferguson et al., 2007; Jiménez-Barbero et al., 2016; Merrell et al., 2008; Ttofi & Farrington, 2011). The evaluation of these same programs' effectiveness for adolescent populations have found even less promising results. Recent meta-analytic findings suggest decreases in programs' efficacy as youth age and null effects for some programs for youth past grade 7 (Yeager et al., 2015). The current study sought to fill a gap in the research by evaluating the effectiveness of an approach aimed at increasing positive youth development and decreasing victimization rates among middle school aged youth called Restorative Practices Intervention (RPI). The present study evaluates data from the first randomized controlled trial employing the practices of RPI in U.S. schools. The study sought to answer three main research questions:

- (1) Do reports of peer victimization at post-intervention significantly differ between treatment and control groups?
- (2) What particular components of the Restorative Practices Intervention have a significant impact on overall victimization rates?
- (3) What components of Restorative Practices Intervention have a significant impact on outcomes associated with positive youth development including empathy, cooperation, and school connectedness?

In this chapter, the results of the analyses conducted for each of these research questions will be discussed and implications will be provided for future research, practice, and policy.

## **Discussion of Salient Findings**

Results from each research question are reviewed and interpretations of the findings are provided. There are many plausible interpretations of the findings. The explanations provided here are grounded in theory and subject to the interpretation of the researcher.

**Effectiveness of RPI and its components on victimization.** Results from the first research question evaluating the difference in victimization reports at post-intervention showed no significant differences between the treatment group receiving RPI and the control group on victimization outcomes. The finding of non-significance held when evaluating victimization outcomes by specific type, as well (physical, emotional, and cyberbullying). Results for the second research question showed no significant effects between the distinct components of RPI (restorative dialogue, fair process, and reintegrative management of shame) and victimization outcomes. There are a number of possible explanations for these findings from both theoretical and methodological perspectives.

When evaluating a program's effectiveness and investigating potential reasons as to why a program may be less effective with a certain sample, it is imperative to consider the developmental needs of those participating in the intervention (Troop-Gordon, 2017). Adolescent development, as discussed previously in Chapter 2, explains the specific biological, cognitive, emotional, social, and environmental changes early adolescents generally experience. This knowledge may be helpful to consider when interpreting the findings of non-significance between groups.

During adolescence, youth are maturing in their capacities for more complex cognition and greater emotional control. However, it is known that these two components- cognition and emotion- fully mature last (Dahl, 2004). Restorative practices as employed in RPI may possibly

place demands on some youth that exceed their cognitive and emotional capacities. For example, in some cases, outcomes from participation in restorative practices such as circles and conferences have included increases in anger and resentment (Kenney & Clairmont, 2009). These negative emotions may be exacerbated by youths' increasing hormones and heightened sensitivities which may lead them to act erratically in emotionally driven ways (Arnett, 1992; Dahl, 2004; Hooper et al., 2004). If this is the case, bringing together a bully and a victim during a restorative conference may increase the chance for future victimization of the targeted student if the bully holds resentment or is angered by the process or outcome of the conference (Bazemore & Schiff, 2005). Additionally, power imbalances can be exacerbated if restorative practices are not used in a democratic sense where both parties involved (offender and victim) elect to participate of their own free will and choice (Bazemore & Schiff, 2005; Choi & Gilbert, 2010; Daly, 2002, 2006; Strang, 2002; Umbreit, 1999). Because of this possibility, restorative practices may need to be used more cautiously to address incidents of bullying specifically among youth who are in the early stages of adolescent cognitive and emotional development. However, taking into account Steinberg's (2005) framework, the use of RPI may be more appropriately fitting for middle to late adolescence when youths' emotional and cognitive capacities have matured and their ability to regulate emotions and behavior is greater.

In addition to these cognitive and emotional changes, developmental theory explains that early adolescents undergo a number of social and environmental changes as well. For many middle school students, an environmental change they experience is transitioning from an elementary school setting to a middle school setting. Research has shown that bullying by peers increases the year that students make this transition (Pellegrini & Long, 2002; Pepler et al., 2006). This possible increase in bullying behaviors by peers may account, in part, for the

nonsignificant differences found between treatment and control groups. It is also possible that victimization rates increased for both groups during year one and two of middle school, which may have masked differences that were associated with the intervention. Additionally, this study was limited in its ability to evaluate the effectiveness of RPI with all the distinct forms of victimization. It is possible that RPI may be more effective with one form of victimization than another, however, more robust measures of the distinct forms of victimization are needed to test this hypothesis.

This environmental change of a transition to a different school setting is also accompanied by major social changes in youths' lives. These changes may have impacts on the ability of RPI to effect change in victimization outcomes. Social identity theory helps to explain some of the mechanisms that may bring about change in victimization outcomes as a result of participating in RPI. Social identity theory as explained in Chapter 2 involves both a student's self-identity, or self-worth and the identity they derive as being a member of the greater community (or school) (Tyler, 1998). It is theorized that as students experience RPI related practices, such as expressing themselves through affective statements, avoiding toxic shame inducing experiences, and having their input valued in fair process procedures that subsequently their self-worth increases. Additionally, as students have positive experiences with teachers and peers in the school, their social identity as a valued member of the community is established and maintained (Tyler, 1998). However, the shift to middle school brings about changes that may interfere or modify this process as described in social identity theory.

In early adolescence, aggression is commonly seen as a means to enhance one's social status and increase one's popularity (LaFontana & Cillessen, 2010; Rose, Swenson, & Waller, 2004). Accordingly, a youth's perception of their self-worth may increase as their popularity and

status increase among their peers. Youth that are victimizing others may find they are not highly accepted or liked by their peers, but that they do have a powerful and leading social position (Cillessen & Rose, 2005, Dijkstra, Lindenberg, & Veenstra, 2008). This position of power may reinforce their negative behaviors in victimizing others. Participation in RPI may not have a significant effect on youth motivated by power and status and who use aggressive behavior to achieve these goals. For example, as these youth perpetrate aggression toward their peers they may be more inclined to pay 'lip service' to the restorative process, in order to avoid punitive sanctions (Daly, 2002). In this case, offending youth participate in restorative processes, but may do so at a superficial level and therefore do not reach an understanding of the harm or wrong their actions caused, experience little empathy for the victims, and do not experience reintegrative management of shame. The result may be that their aggressive behavior may not be deterred.

Additionally, having youth participate in restorative conferences where individuals are labeled as victims and perpetrators may also have serious implications for the youths' social identity. Some research on restorative conferences has shown that individuals' social identities may be vulnerable to the tales told about the offender and/or victim (Kenney & Clairmont, 2009; Presser, 2004). Adolescence is an impressionable time for youth and narratives told may self-impose labels on youth creating a more permanent social identity for them. These defeating self-narratives may not allow youth to experience the emotions and drive for change that is necessary (Harris, 2006). These factors may place youth in jeopardy for reoffending and decreases the likelihood that social and emotional healing can occur and/or victimization outcomes to be reduced (Daly, 2002; Van Ness & Strong, 2010).

Lastly, there exists the possibility that, although RPI was shown to not have a direct effect on victimization outcomes, it may have indirect effects on victimization through other mechanisms such as increases in positive youth development outcomes. For purposes of this study, a mediation model was not tested because of data limitations (i.e., no appropriate midpoint data were available). However, it would be useful in future research to consider possible mediating mechanisms, such as whether positive affect and youth development indicators might mediate the relationship between RPI and victimization outcomes or whether RPI practices might lead to enhanced relationships and school climates and subsequently lead to reductions in incidents of peer victimization.

In addition to these theoretical explanations, there are also possible methodological explanations as to why there was no significant effects found in the study between RPI exposure and victimization outcomes. These methodological explanations include possible discrepancies in dosage, control group conditions, the limited variability in the outcome variable, and timeline of the data collection.

*Dosage.* School staff were trained to implement RPI during year one of the study. However, the timelines for completion of the required training differed among schools. Some schools completed training in a few months while others required almost an entire school year to complete the training protocol. Therefore, it is likely that treatment schools varied in the degree to which they implemented RPI. It is possible that schools who completed the training more quickly were able to implement RPI to a much greater degree than the remaining schools. Therefore, grouping all treatment schools together and performing an analysis using only a dichotomous indicator for treatment or control condition would have masked these discrepancies in dosage received by students and decreased the analysis's ability to detect significant



differences between groups. Implementation data were provided by teachers during the fall and spring of the two year intervention period. However, student data were not linked to teacher data and therefore, this did not allow for the implementation data to be taken into account in the analysis of the student outcomes. Future studies would greatly benefit from being able to incorporate implementation measures into their analyses to control for any possible dosage effects.

Also, in regard to the differing timelines, students in the earlier implementing schools experienced RPI at a critical period of time when they were first entering middle school. It is likely that these students may have positively benefited from the opportunity to interact with the intervention at a critical stage when students are first entering middle school and learning how to navigate social relationships. The impact of RPI may have been greater and more dynamic as students experienced RPI at the start of the school year in their first experience with middle school. Students in the delayed schools that implemented RPI in the later half of the year may have not only missed months of exposure, but the dynamic and interactive influence that RPI might otherwise have had as the students were first transitioning to middle school. During early adolescence as youth are experiencing heightened emotions and behaving in sensation-seeking and more erratic ways (Steinberg, 2005), the supervision and guidance of RPI throughout the whole school may have had a much greater interactive effect on students experiencing the intervention at the start of the year rather than those in the delayed implementation schools.

**Control group.** Schools in the control group did not have access to RPI training during this study's period (year 1 and 2). However, control schools continued to implement anti-bullying programming that they had been previously using before entering the study. It is possible that the established anti-bullying programs in control group schools had effects on

overall victimization rates among students within the two year study period. These interventions employed other than RPI may have increased or decreased victimization scores in the control group schools. In this study's analysis, the victimization scores at Time 1 were entered to control to some degree for this discrepancy of the control group schools employing varying interventions. However, if significant decreases in victimization over time within the control schools resulted from the interventions being used this may have affected the ability of the analysis to accurately detect the effectiveness of RPI when comparing the treatment schools' outcomes to the control group outcomes.

It is also a possibility that RPI may have been as effective as the already established and implemented anti-bullying interventions in the control groups which is why no significant differences were found between groups. Future studies should investigate RPI's effectiveness using a control group of schools that is not actively implementing anti-bullying interventions or a three-group design including an intervention group (using RPI), control group (no intervention), and treatment as usual group (implementing any existing intervention). Such a research design would allow for a more accurate comparison between the treatment schools implementing RPI and control schools and allow for more definitive conclusions to be drawn.

**Limited variability.** The outcome variable of victimization had a low average score and a relatively small standard deviation. This limited variability in victimization rates may have impacted the ability to detect effects of RPI. RPI may show significant impact on victimization levels when tested with groups that have greater amounts of variability in victimization rates.

**Timeline of data collection.** Data were collected at two time points during the school year. Time 1 occurred during the fall term of the first year of the study and data collection at Time 2 was during the spring term of the second year. With data collection at Time 1 occurring

during the first few months of the school year, it is possible that this baseline data reflected lower levels of victimization as students were new to the school environment and patterns of victimization may not have been established yet. Therefore, the baseline data may not accurately reflect levels of victimization that students experienced during year 1. This is in comparison to the year 2 data that were collected at the end of the school year which may have captured more accurate patterns of peer interactions and shown greater levels of victimization. Using these two time points of data may have impacted the analysis of RPI's effectiveness. Using comparisons of data collected at similar time points during the school year would allow for a fairer comparison.

**Effectiveness of RPI components on PYD outcomes.** The third and final research question investigated RPI's impact on three positive youth development outcomes of empathy, cooperation among peers, and school connectedness. Empathy and cooperation were shown to be significantly associated with particular components of RPI. These associations will be discussed in further detail.

*Empathy.* Results from the structural equation model showed that empathy was significantly positively associated with increases in exposure to the RPI component of reintegrative shame management. Empathy is often viewed as a key building block in helping children and youth to develop prosocial skills (Komorosky & O'Neal, 2015). In the literature, empathy has also been linked to increased levels of social competence (Sallquist, Eisenberg, Spinrad, Eggum, & Gaertner, 2009), stronger peer relationships (Sebanc, 2003), and with helping and volunteerism (Spinrad & Eisenberg, 2009). Empathy has also been found to be negatively related to forms of peer victimization (Kokkinoas & Kipritsi, 2012).

When evaluating the effect of a restorative approach of discipline on students, Wong and colleagues (2011) found that students experiencing a fully implemented restorative approach had

higher levels of empathy at the end of the study period as compared to their peers not experiencing a restorative approach. Additional empirical evidence demonstrates that victims report seeing the offenders “more humanized” and feeling more empathy toward their offenders after participating in a restorative intervention (Bazemore & Schiff, 2005; Strang et al., 2006; Umbreit & Vos, 2000).

The underlying philosophy of restorative justice focuses on the development of empathy, compassion, and caring (Komorosky & O’Neal, 2015; Van Ness, & Strong, 2010; Zehr, 1990). In particular, the RPI component of reintegrative management of shame has been linked to increased empathy levels through its ability to put into effect two adaptive functions of shame that aim to: (1) curb the wrongdoer from further rule breaking and (2) humanize the victim (Braithwaite, 1989; Howell, Turowski, & Buro, 2012; Ishikawa & Uchiyama, 2000). RPI key practices such as circles and restorative conferences heavily emphasize the principle of reintegrative management of shame. It is hypothesized that as perpetrators participate in restorative circles and conferences and are able to hear victims tell their stories that the victim(s) are “humanized” to a greater degree. In other words, the perpetrator or offender is able to see the victim from a different perspective. They begin to understand how their harmful actions affected the life of the individual victim. This process assists the perpetrators in developing greater empathy toward their victim(s) (Bazemore & Umbreit, 2001). Additionally, these practices bring together all parties affected by the harm and in turn are able to help each participant become acquainted with and begin to understand one another’s feelings and thoughts perhaps increasing feelings of empathy throughout the group (van Wormer, 2009). The findings from this study comport with the theoretical understanding that properly employed restorative practices using reintegrative shame management techniques may increase empathy for participants.

The results from Question 1 showed that RPI is not significantly directly associated with victimization outcomes. However, the findings here associated with reintegrative shame management's link to empathy highlights the possibility that a component of RPI may be indirectly associated with victimization outcomes. Previous research using structural equation modeling techniques shown that for boys, lower levels of empathic responses were associated with greater involvement in bullying and empathy was positively associated with intervening to help victimized peers (Gini, Albiero, Benelli, & Altoe, 2007). In another sample, researchers found that empathy mediated the gender differences found in bullying behavior by youth. In other words, the increases in bullying behavior exhibited by males in the sample were found to be mediated by the lower levels of empathy in males (Topcu & Erdur-Baker, 2012). These findings shed light on the possibility that empathy may have a direct and indirect (mediating) effect on bullying behaviors and ultimately on victimization outcomes in adolescents. With no available midpoint data in this study, however, it was not possible to conduct a mediation analysis. However, these findings provide supporting evidence that increases in empathy in youth derived from RPI practices might lead to eventual reductions in victimization outcomes. In future research with appropriate data, this hypothesis should be tested.

RPI, on the whole, is focused on increasing compassion and empathy for all participants (Van Ness, & Strong, 2010; Zehr, 1990). However, amongst all components of the intervention, reintegrative management of shame most strongly emphasizes the humanity of the victim and the need for the perpetrator to acknowledge their wrongs, repair it to the extent possible, and refrain from causing harm to another individual again. It makes theoretical sense that if only a single component of RPI would be significantly directly associated with empathy then it would be most likely reintegrative shame management.

Fair process and restorative dialogue were both found to not be significantly directly associated with increases in individual students' empathy levels. However, one of these components, restorative dialogue was found to be significantly directly associated with increases in cooperation as will be discussed in the next section. There exists the possibility that restorative dialogue may have indirect associations with empathy through mediating mechanisms such as cooperation or other untested mechanisms in this study.

Fair process allows for teachers to engage more with students and solicit and incorporate more student input into daily decisions and classroom procedures. Research has shown that this type of responsive student-teacher environment is associated with increases in prosocial behavior in students (Luckner & Pianta, 2011). Although these previous findings do not demonstrate a direct link from fair process procedures to increases in student empathy levels, more complex models in future research may elucidate indirect pathways or other mediating mechanisms.

**Cooperation.** Findings from this study showed a significant positive relationship between cooperation and exposure to restorative dialogue. Research suggests that schools that promote caring environments including the use of cooperative learning and cooperative classroom meetings, report student populations with increased liking for school, stronger motivations for learning, and decreased issues of delinquency (Lewis et al., 1996). Likewise, classroom groups with higher levels of cooperation have shown statistically significant increases in academic achievement, class cohesion, perceptions of fairness, and social support (Ghaith, 2003). Enhancing the level of cooperativeness in the classroom can bring positive benefits.

An association between restorative type dialogue, which in this study includes restorative questions and affective statements, and cooperation has been cited in previous studies. For restorative questions, the link to peer cooperation has been shown to occur indirectly through

accountability. Restorative questions are posed to students after they have been involved in an incident of harm. Specifically, teachers ask how individuals were affected, whose responsibility it was, and how can the situation be remedied and relationship with those involved repaired (Longmont Community Justice Partnership, 2017). These types of questions call for individuals to take accountability for their actions and commit to working to make things right. Personal accountability has shown to be positively associated with increases in peer cooperation (Slavin, 1990).

Research also suggests that students require help in learning how to ask the right questions to identify problems and need assistance in learning how to ask for help to resolve problems (Blumenfeld, Marx, Soloway, & Krajcik, 1996). Restorative questions modeled by teachers and others may be helpful in teaching students these important skills of asking the right questions and seeking solutions through their questions. This type of clear, solution-focused dialogue has the ability to enhance relationships in the classroom and may lead to greater interdependence and cooperation.

In addition to restorative questions, RPI encourages teachers to use affective statements to increase social connection among students. These statements give teachers and students the opportunity to express emotions toward positive and negative events occurring in the classroom (Wachtel, Costello, & Wachtel, 2009). As students listen to one another's affective statements, it provides them the opportunity to understand how their own actions may have affected others (Mirsky, 2011). Research suggests that when affective statements are used in these ways to allow for free expression of emotion and increased interpersonal understanding, that relationships are perceived as more supportive (Tomkins, 1991; Wachtel, 2012). This study's findings comport with these research findings. Increases in the use of restorative questions and

affective statements can create learning environments where students are invested in learning more about one another and working together in cooperative ways. Previous research has shown that increases in cooperative behavior and peer support can lead to reductions in victimization as peers in a more cooperative setting are more likely to intervene on a targeted student's behalf (Cowie & Hutson, 2005). Cowie and Wallace (2000) described this peer support as being built through teaching students good communication skills and how to reflect on their own and others' emotions. Strong communication skills and the ability to reflect and understand emotions are both key outcomes derived from the use of restorative dialogue in the classroom. Although this pathway was untested in this dissertation, the finding that a component of RPI increases cooperativeness in the classroom provides initial evidence that at a future point such increases in cooperativeness may eventually lead to peers intervening in situations and ultimately reducing the incidence of victimization within the classroom setting.

There was not a significant relationship found between the RPI components of fair process or reintegrative shame management and cooperation. The reason for these results remains uncertain. However, a few possible explanations exist. Fair process seeks to establish democratic values and is used by teachers to incorporate student input into the classroom (Acosta et al., 2016). However, the enhanced communication about expectations and inclusion of student input into classroom decisions may not have a large enough effect on the level of peer cooperation to be seen directly. Instead, the association between fair process and cooperation may be mediated through another mechanism that was not included in the model. This may be true of the component of reintegrative shame management as well. Restorative conferences and other ceremonies are formal in nature and structured to be heavily led by adults. The benefits from these formal conferences and the use of reintegrative shame techniques may not be largely



seen in the measure of cooperativeness that captures the more informal interactions between students. However, if more complex models were employed to investigate possible mediating mechanisms or were able to evaluate the interconnectedness amongst these RPI components, there may be associations found.

**School Connectedness.** School connectedness can be broadly conceptualized as a feeling youth have that people at school care for them, that they belong there, and that they are safe (McNeely, Nonnemaker, & Blum, 2002). School connectedness is an important indicator of youth's wellbeing (Resnick et al., 1997). Scholars purport that a restorative justice approach to school discipline is capable of meeting students' relational and social-emotional needs and can enhance students' school connectedness (Hopkins, 2004; Weare, 2004). Healthy dialogue within the classroom setting has been linked to enhanced sense of community reported among students (Osterman, 2000; Schumacher, 2014). As for fair process, an emphasis on democratic values has been identified as a predictor of increases in sense of community (Osterman, 2000). In addition, consistent use of fair process can fuel more equal "power relationships" within the school that can enhance feelings of community and school connectedness (Rowe, Stewart, & Patterson, 2007). The results of this dissertation study, however, did not find significant direct associations between restorative dialogue, fair process, or reintegrative shame management with the outcome variable of school connectedness.

There are a number of possible explanations for this lack of significant association between RPI and changes in students' levels of school connectedness. As was described, school connectedness is a broad, overarching construct that encompasses students' feelings of fondness toward school ("liking school"), feeling safe at school, and feeling that they belong at school (McNeely et al. 2002). A systematic review conducted on programs that aimed to enhance

students' feeling of school connectedness concluded that enhancing this construct may require quite extensive and complex interventions (Chapman, Buckley, Sheehan, & Shochet, 2013). RPI may possibly serve as one intervention among an array of possible interventions that in combination may be able to affect significant changes in school connectedness levels among students. Additionally within the two year timeframe of this study, it is possible that RPI may have not had enough time to bring about significant changes in school culture and climate to see associated increases in students' reports of enhanced connectedness. Similarly, research shows that during adolescence, in general, students' connectedness to school decreases which may have affected the results of the evaluation as well (Monahan, Oesterle, & Hawkins, 2010). Another possible explanation, as stated previously, is that indirect effects from the components of RPI may be found in a more complex model investigating effects through mediating mechanisms.

In summary, the results from the RCT data showed exposure to RPI had significant, positive associations with positive youth development indicators but no significant direct effect on victimization outcomes. In terms of reducing victimization, it is possible that RPI is not developmentally appropriate for this sample of middle school students among who it was tested. However, other methodological reasons exist that may explain the non-significance found in the present study. More complex models than the one tested in this current study may allow for more nuanced evaluations of mediating mechanisms or interrelationships among components of RPI that may elucidate significant indirect or other associations. Some of these possible mediating mechanisms may be the positive youth development outcomes that were tested and found to be significantly associated with components of RPI. These outcomes of empathy and cooperation provide promising, initial evidence that RPI does have a positive effect among the middle school population. It also encourages the pursuit of future studies to evaluate whether there are any

further pathways connecting RPI to reduced victimization outcomes possibly through these positive youth development indicators.

### **Limitations**

Several major limitations of the study are important to consider when considering these findings.

**Sample.** The sample was drawn from a single state with a majority of the students reporting as White (84%). These sample characteristics limit the ability to generalize findings to samples that do not reflect the study sample.

**Timeline.** Differences in the treatment schools' training timelines likely created discrepancies in the extent of implementation of RPI and in the dosage of RPI students received. Staff at all treatment schools were trained by facilitators from the International Institute for Restorative Practices (IIRP) over a period of 4 days. All treatment schools completed the first two days of training during the fall semester. However, due to delays associated with severe winter weather and other scheduling conflicts, a number of schools did not complete the remaining 2 days of training until well into the spring semester. These possible differences in implementation of RPI caused by the varying training time limes may have also created discrepancies in student dosage of RPI and therefore limited the ability of the analysis to find significant effects between the treatment schools and control schools.

Additionally, research suggests that bullying and peer victimization are persistent problems highly resistant to change. Interventions may require significant amounts of time to produce changes in such behaviors (Smith & Sharp, 1994). This current study spanned only 2 school years which may limit the model's ability to show significant change across the variables evaluated.

**Measurement.** A student survey allows for youth to share and report on their own experiences. However, caution should be taken when interpreting self-reported data as youth may respond based on bias or an incomplete understanding of the survey questions. Additionally, the quantitative nature of the survey responses limits the scope of information that can be gathered from participants. Lastly, with the limited number of items (three) that were asked about victimization, the measure used may not have fully captured the range of their victimization experiences. It is possible that RPI may be more effective in reducing victimization more by one form than another. The first research question in this study was able to evaluate RPI's effectiveness in the three distinct forms captured in the study (physical, emotional, and cyber). However, these outcomes were limited to a single indicator and more robust measures are needed to thoroughly evaluate RPI's effectiveness on the distinct and varying forms of victimization.

Despite these limitations of the sample, study timeline, and measures used, this study was able to evaluate data that was collected using a rigorous research design over a period of 2 years. In addition, the intervention implementation was supervised by trained experts and the data was collected by independent researchers.

### **Implications**

Despite these limitations, findings of this study have implications for social work practice, policy and future research, which are detailed below.

**Practice.** This study did not find evidence of RPI's effectiveness in reducing peer victimization issues at the middle school level. However, significant positive associations were identified between components of RPI and positive youth development outcomes. These findings

have important implications for the field of social work, especially with middle school aged youth.

The study results provide preliminary evidence that reintegrative shame management enhances empathy. This has important implications for social workers and educators. A strongly held value and principle of the social work profession is to respect the inherent dignity and worth of all persons (NASW, 2008). The significance of reintegrative shame management techniques in the school setting is found in the interactions that adults have with youth, both perpetrators and victims. As shame management was found to promote empathy in youth, school leaders and teachers are encouraged to implement this value of respecting the inherent dignity and worth of all into their practice through the use of shame management techniques. These techniques allow for the perpetrator to be treated with respect and allows for them to maintain their sense of identity and worth, while also being held accountable for their wrong actions and being encouraged to make amends for their wrongs. For restorative justice advocates, the social and emotional healing that can occur from such reparations and resolutions are the ultimate goal of implementing the restorative approach (Zehr & Mika, 2004). Additionally, increases in empathy as a result of reintegrative shame management being incorporated into school practices and procedures can increase social competence of students and strengthen peer relationships (Seban, 2003; Spinrad & Eisenberg, 2009). School practices that employ reintegrative shame management techniques have the potential of building stronger relationships and social skills in students and enhancing the overall social climate of the school.

Secondly, the results of this study provide more evidence that teachers' words and actions have a significant effect on students. An extensive body of research has shown that

the teacher-student relationship is an important factor in students' engagement, learning, and performance (Klem & Connell, 2004; Martin & Dowson, 2009; Pianta, Hamre, & Allen, 2012; Wentzel, 2009). The findings from this study show that the language teachers use and to what extent they model appropriate questioning and problem solving have implications for outcomes in the classroom. How adults in the classroom speak, particularly how emotional issues are handled, can enhance the level of cooperation. School teachers and leaders can support positive outcomes for youth in middle schools by modeling use of affective statements and healthy problem solving dialogue and incorporating fair process procedures into their classroom management styles.

School social workers, educators, and other key school personnel seeking to enhance positive outcomes for youth should seek to model language similar to restorative dialogue and establish disciplinary procedures that incorporate the use of healthy shame management. Schools could see increases in positive outcomes as they shift towards these practices.

**Policy.** This study's literature review and findings have implications for the arena of social policy and for individuals responsible for developing school-based and other educational policies. The review of meta-analyses of anti-bullying programs identified a gap that exists in effective programming for older youth (Yeager et al., 2015). Furthermore, research has shown that aggressive behavior peaks during early adolescence (Nansel et al., 2001; Pellegrini & Bartini, 2001). It is imperative that policymakers are mindful of this age group and seek to address this gap in programming for adolescents. Policies should call for evaluations of established programs to see how developmentally appropriate they are for the students they are serving, particularly for those in grade 6 and above.

Secondly, the intervention tested in this study, introduces a new approach to addressing harm at school, peer victimization, and other similar school disciplinary issues. Although direct effects were not found in the present study, this approach may offer a promising alternative to the less effective zero tolerance philosophy that has underlined policy making in the past, especially given findings that RPI practices may encourage positive youth development in other ways. Since the early 1990s, school policies adopted to address problem behavior largely focused on the philosophy of zero tolerance, which included swift suspension and expulsions for student misbehavior. However, a report from the American Psychological Association's Zero Tolerance Task Force, revealed that adherence to the exclusionary discipline techniques embedded in the zero tolerance philosophy were accelerating negative mental health outcomes for many youth (APA, 2008). The report found that the more punitive techniques ultimately led to the shaming and alienation of at-risk youth and the breaking of healthy bonds students held with adults in the school environment (APA, 2008). Restorative justice, in juxtaposition to the zero tolerance philosophy, is centered on healing harmed relationships within the school community. This healing occurs through the use of the adaptive functions of shame with the aim to hold the offender accountable to make amends to the victim, while continuing to seek reintegration of the offender into the school community and eventually a resolution to the entire situation (Van Ness & Strong, 2010; Zehr & Mika, 2004). In stark contrast to the shaming and alienating consequences of zero tolerance policies, this study showed that RPI's component of reintegrative shame management can promote positive youth outcomes when applied to the middle school setting. The adaptive function of shame can and should be utilized in schools. Stakeholders responsible for the creation of school discipline policies should be knowledgeable about the adaptive and maladaptive functions of shame and use this information to establish

policies that incorporate healthy, reintegrative shame management into their school discipline policies.

Lastly, legislative initiatives since the era of reforming zero tolerance have called for increased resources for schools to implement a broader range of alternatives to discipline even including practices that are preventative (APA, 2008). This dissertation research suggests that interventions need to focus on not only eliminating negative outcomes, but by concurrently promoting positive ones. Research has shown that school-based programs that focus on the physical, social, and emotional competence of youth are more effective than those which emphasize solely the reduction of problem behaviors (Scales, Roehlkepartain, & Fraher, 2012).

**Research.** This dissertation study has important implications in terms of its design, measures, and findings. A background review of the existing literature for this dissertation study revealed that the previous evaluations conducted on restorative justice programming in the U.S. had included only pilot studies, correlational analyses, and quasi-experimental designs. Although studies did provide important preliminary data on the potential effectiveness of the restorative approach, they lacked rigor in their design. This dissertation study was able to use data from a cluster randomized control trial of a restorative justice-based program in U.S. schools. In future research on this topic, greater emphasis should be placed on more rigorous designs to advance the field of study, including but not limited to randomized controlled designs.

In terms of research measures, the appropriately fitting CFA and SEM models within this study indicated that three separate constructs existed in the survey items given to students. However, the intervention conceptually has four distinct constructs. This discrepancy can and should be addressed in future research. Specifically, the survey items related to affective statements and restorative questions should be revised such that these two components can be



modeled as distinct components rather than collapsed into a single category as they were in the present study. Future evaluations of RPI would benefit from an instrument that is able to adequately capture these four distinct components of RPI.

Lastly, this study's findings were not able to provide definitive answers as to the appropriateness of RPI's fit for adolescents in regard to the reduction of peer victimization issues. However, the findings of this study provide preliminary evidence that the implementation of RPI in middle school settings is associated with increases in positive youth outcomes. However, the exact mechanisms that drove these associated increases in positive outcomes have yet to be explored and investigated. Future research is needed to identify these mechanisms of change and also to evaluate RPI's effectiveness in different settings.

There are also a few considerations to be made when calling for a replication of this study. This study was limited by the available data, which only allowed for an evaluation of victimization based on a limited set of items. In future studies, it will be necessary to include perpetration outcomes in the analysis, thereby providing a more comprehensive evaluation of RPI's effect on the issue of peer victimization in the school setting. In addition, more robust measures of victimization should be used, especially previously validated and reliable measures that assess the multiple forms victimization can take. Also, school level measures, in addition to the student level outcomes measures in this study, would add to the understanding of the appropriateness of RPI within the middle school setting. Thirdly, as RPI is a whole school approach addressing an issue that is resistant to change (Smith & Sharp, 1994), allowing for a longer study period would increase the ability to detect significant changes, during subsequent analyses. A longitudinal study would also allow for a more comprehensive analysis of RPI's effect on youth during the course of the entire adolescent developmental period. Lastly, using a

randomized controlled trial where the control group does not employ any specific interventions dealing with peer victimization may increase the power of the study to detect differences between treatment and control conditions.

### **Conclusion**

Peer victimization is a serious issue with lasting consequences for victims and perpetrators. This study evaluated the effectiveness of an intervention with a unique approach to addressing the harm in relationships created by victimizing behaviors. Although no significant differences were found in victimization outcomes of participants, this study does provide initial evidence indicating that components of the intervention did promote positive youth outcomes. Future research is needed to determine more about the specific mechanisms that brought about this change and how these positive outcomes may be leveraged to bring about eventual reductions in victimizing behaviors and incidents of victimization in the school setting.

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## **Appendices**

Appendix A: Thresholds for Model Fit Indices for CFA and SEM

Appendix B: Additional Figures

**Appendix A: Thresholds for Model Fit Indices for CFA and SEM**

Measure	Name	Cut off for good fit
$\chi^2$	Model Chi-Square	p-value > 0.05
RMSEA	Root Mean Square Error of Approximation	RMSEA < 0.08
CFI	Comparative Fit Index	CFI $\geq$ .90
TLI	Tucker Lewis Index	TLI $\geq$ 0.95
SRMR	Standardized Root Mean Square Residual	SRMR < 0.08

(Hooper, Coughlan, & Mullen, 2008; Kline, 2005)

## Appendix B: Additional Figures

Figure 1. Structural Model for Victimization at Time 2

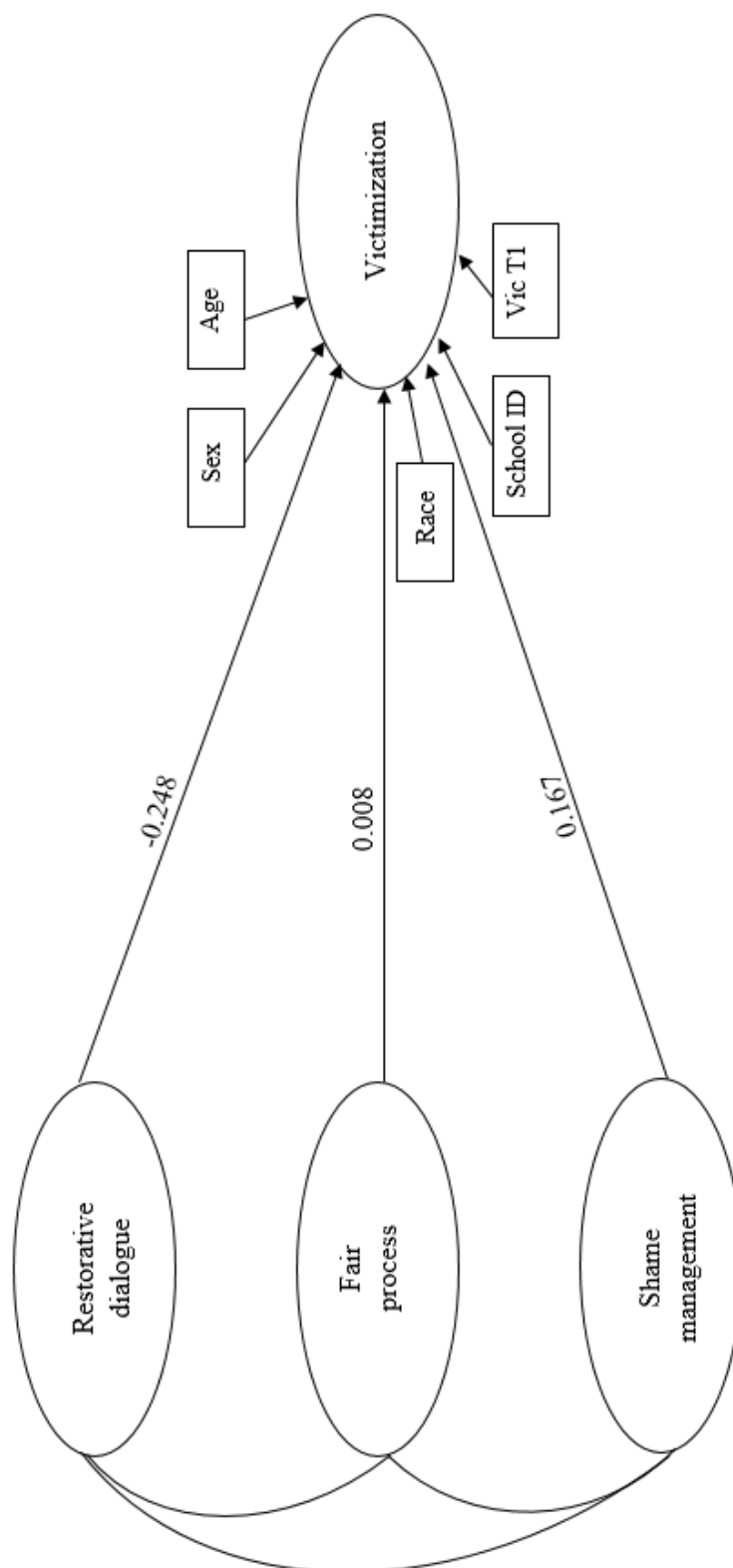
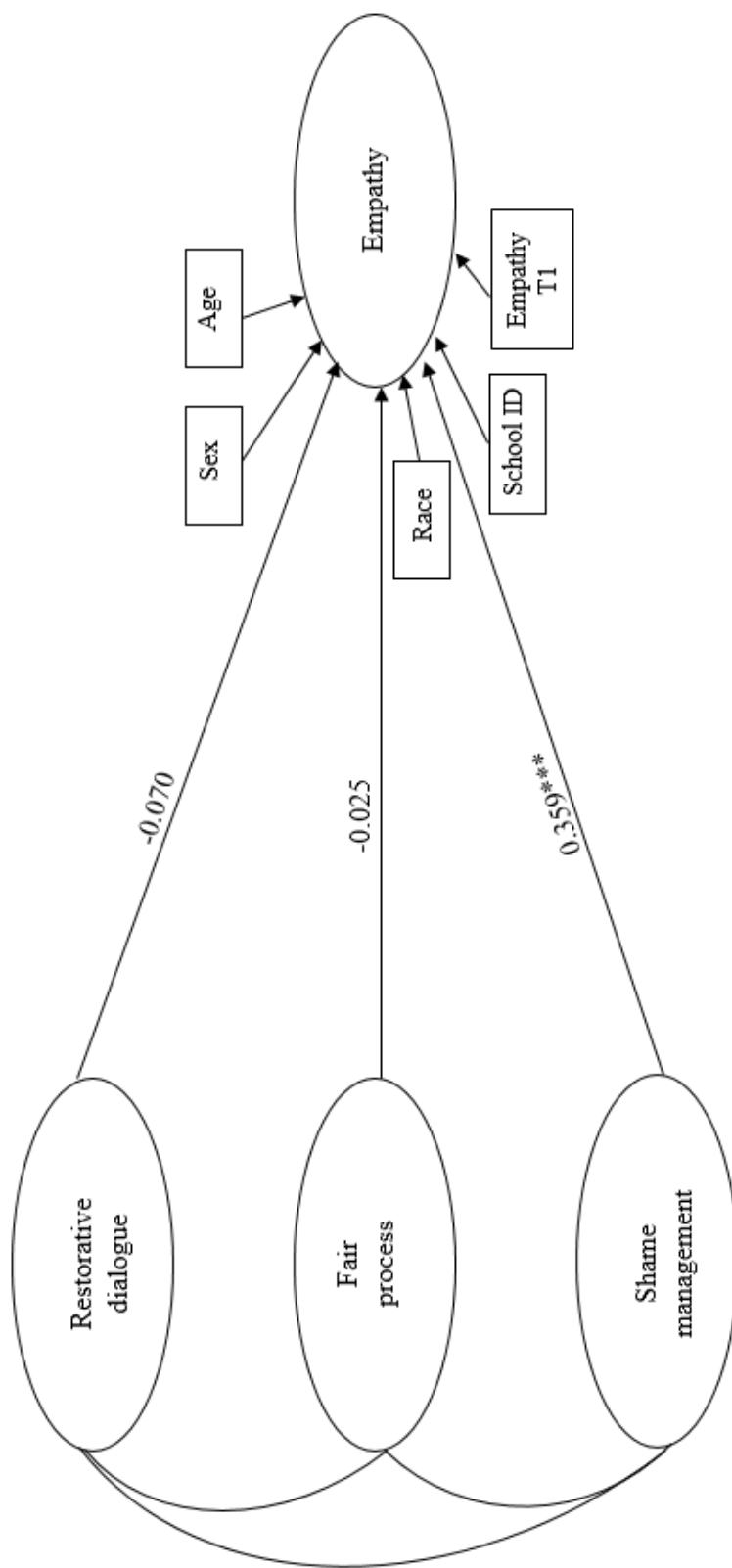
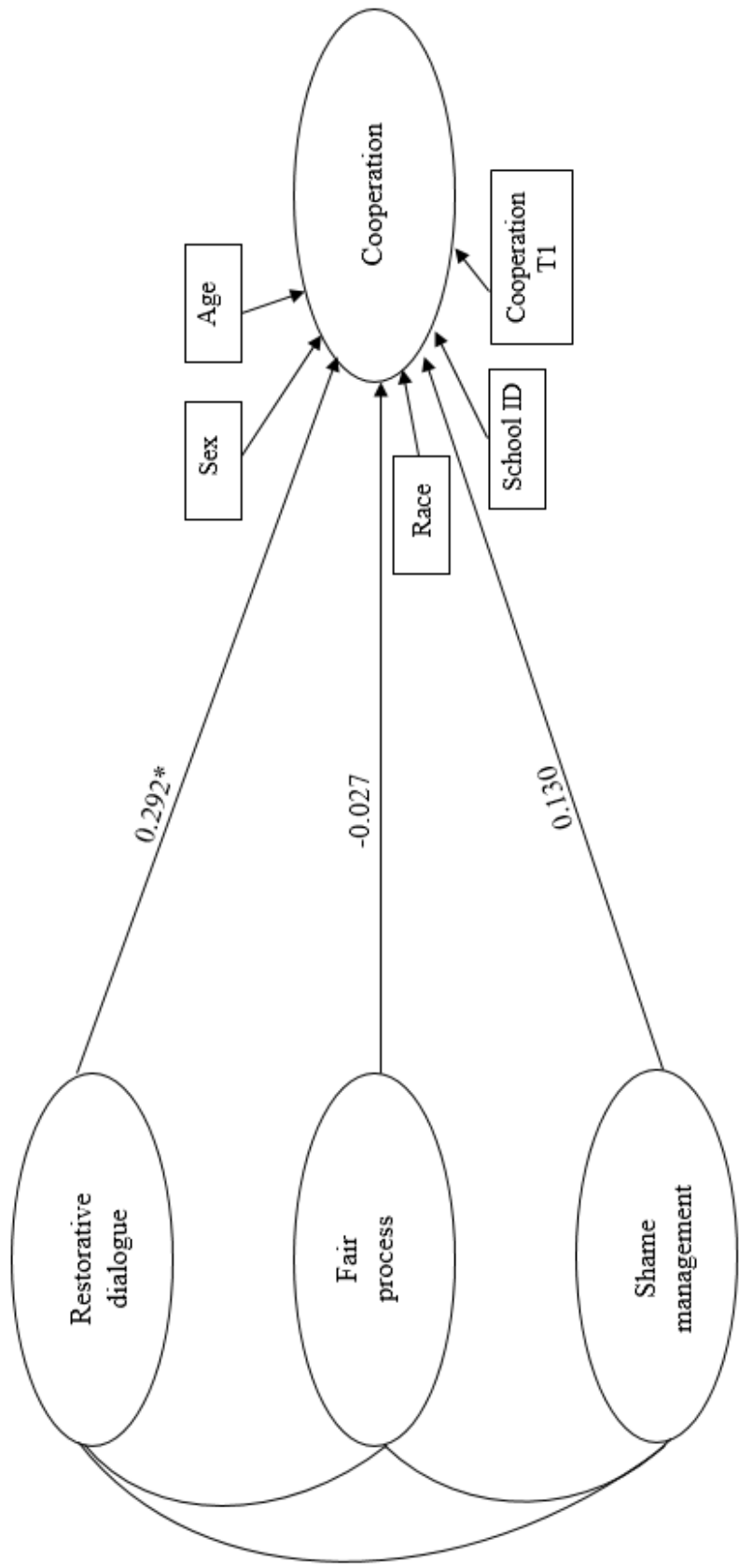


Figure 2. Structural Model for Empathy at Time 2



\*\*\* $p < .001$

Figure 3. Structural Model for Cooperation at Time 2



\* $p < .05$

Figure 4. Structural Model for School Connectedness at Time 2

