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MEASURING PROSOCIAL BEHAVIOR THROUGH THE IMPLEMENTATION OF

A VIOLENCE PREVENTION INTERVENTION

A Dissertation

Submitted to the School of Education

Duquesne University

In partial fulfillment of the requirements for

the degree of Doctor of Philosophy

By

Erin L. Martin

May 2011

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DUQUESNE UNIVERSITY

SCHOOL OF EDUCATION
Department of Counseling, Psychology, and Special Education

Dissertation

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

School Psychology Doctoral Program

Presented by:

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B.S. Psychology, Cleveland State University, 2006
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January 31, 2011

MEASURING PROSOCIAL BEHAVIOR THROUGH THE IMPLEMENTATION OF
A VIOLENCE PREVENTION INTERVENTION

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ABSTRACT

MEASURING PROSOCIAL BEHAVIOR THROUGH THE IMPLEMENTATION OF

A VIOLENCE PREVENTION INTERVENTION

By

Erin L. Martin

January 2011

Dissertation supervised by Tammy Hughes, Ph.D.

Childhood aggression is the best-known behavioral predictor of future social adjustment difficulties. Children with early onset aggression are likely to engage in aggressive behavior throughout the life course (Hester, Baltodano, Gable, & Tonelson, 2003). Early aggressive behavior is also strongly associated with later criminal behavior and deviant peer relations, poor school achievement, school dropout, and unemployment (Haemaelaeinen & Pulkinnen, 1996; Hay & Pawlby, 2003; Kokko, Tremblay, Lacourse, Nagin, & Vitaro, 2006; Scourfield, John, Martin, & McGuffin, 2004). Recently researchers have focused on determining the positive behaviors that could potentially stop aggressive situations from progressing. These helping behaviors are defined broadly as prosocial behaviors (Cashwell, Skinner, & Smith, 2001; Goldstein, Carr, Davidson, & Wehr, 1981; Greener, 2000; Leffler & Snow, 2001).

The Be a Safety Kid curriculum provides direct instruction to children in Kindergarten through eighth grade by differentiating appropriate and inappropriate behaviors, teaching individual prosocial behaviors and identifying age-appropriate

methods for reporting safety concerns in an effort to decrease violent incidents in the school environment. This school-wide curriculum is based on the ideals of "Responsible Reporting" or appropriate telling of information when a dangerous situation is apparent or known to students. This paper will review and elaborate upon the history, development, and recent research of prosocial behaviors. The effectiveness of this school-wide curriculum will be measured using a pre-test/post-test instrument, termed S.T.A.R., on seventh and eighth grade students in a school environment. Children are evaluated in terms of increased knowledge and their actual ability to act. Comparison of subjects and treatment utility are also collected to determine the impact of the curriculum on the school environment. The results indicated the Be a Safety Kid curriculum did not significantly produce improvement in knowledge or hypothetical ability to demonstrate prosocial behavior. The conclusions will add to the growing amount of literature to establish more evidence-based practices in the reduction of violence in the school environment.

DEDICATION

I would like to dedicate this work to those that provided me with love, guidance, and
support throughout this process. I would also like to thank my fiancé Austin for standing
by me and helping me realize my true strength and potential.

"In all chaos there is a cosmos, in all disorder a secret order."

~Carl Jung

ACKNOWLEDGEMENT

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CHAPTER 1

INTRODUCTION

Threats of school violence and episodes of actual violence compete with the

instructional mission of a school. Violence prevention is a day-in, day-out responsibility

that infuses every aspect of school life, including the day-to-day routines of playground

safety and classroom management, school policies addressing internet use, and school-

wide initiatives to diminish gang activities, and promote the identification and early

intervention of students who are struggling academically and socially. As such, school

systems, teachers, and students need to work together to address aggressive behavior in

the school setting. Priorities set by schools, local authorities, and state and federal

governments have prompted the nation to focus on improving the safety of American

schools. Without a safe learning environment, teachers may have difficulty teaching and

students may have difficulty learning. Effective efforts regarding interventions centering

around establishing a safe learning environment both protect the physical safety of

students and staff and promote positive learning and social development (Paine &

Cowan, 2009).

Researchers have shown that among youth ages 5-18, there were 35 school-

associated violent deaths from July 1, 2006 through June 30, 2007 including 27

homicides and 8 suicides. During 2006, there were over 1.5 victims of nonfatal crimes at

school per year, 8 percent reported being threatened or injured with a weapon in the past

12 months with 86 percent of public schools reporting at least one violent crime, theft, or

other crime occurring at their school (National Center for Education Statistics, 2008).

While it may not be possible to prevent all violence from occurring, we can work to

reduce the likelihood of its occurrence. Through thoughtful planning and the establishment of effective school violence prevention programs that focus on the development of prosocial behavior, we have the opportunity to avert crises and be prepared when they do happen. For preventive and intervention purposes, it is important to identify and expand upon the subgroup of children that display prosocial behavior in the school environment for two reasons: 1) schools can increase the number of reports regarding dangerous and potentially dangerous situations to find and address problems early and 2) children who hold these skills show greater adjustment (Barr & Higgins-D'Alessandro, 2007).

Definitions

Prosocial behavior has varied definitions in the literature. However, foundations of meaning of prosocial behavior persist throughout the literature base. These behaviors are defined as actions that are intended to assist or benefit another individual (Eisenberg et al., 1999; Findlay, Girardi, & Coplan, 2006; Hay, 1994; Kidron & Fleischman, 2006). This includes any behaviors that are helping another individual even if there is no sacrifice or benefit to the helper. Prosocial behaviors include responding to signs of suffering, need, or danger in another person or animal. These behaviors include assisting, sharing, being kind and considerate, comforting, cooperating, protecting someone from harm, rescuing someone from danger, and feeling empathy and sympathy (Radke-Yarrow & Zahn-Waxler, 1986). Further, many consider prosocial behavior as indicative of an underlying altruistic personality trait (Eisenberg, Pasternack, Cameron, & Tryon, 1984; McKinley & Carlo, 2007) and intrinsically motivated by concern for others or internalized goals (Hay, 1994; Hay & Pawlby, 2003).

Additionally, prosocial behaviors can overlap and coincide with stabilized and inherent personality traits that include empathy, sympathy, perspective taking, and moral reasoning (Eisenberg et al., 2002). This is in contrast to behavior that is based on the expectation of concrete or social rewards, or the desire to avoid punishment or sanctions (Eisenberg et al., 1984; McKinley & Carlo, 2007). It is critical to study the development and intercorrelational personality traits of prosocial behaviors as they can serve as an aid in interrupting an aggressive or potentially aggressive situation.

Development of Prosocial Behaviors

The examination of prosocial behavior and its relation to child development is reported to have begun with William McDougall and Lois Murphy in the early 1900s and expanded to public examination through description of the Genovese syndrome - the social phenomenon of the bystander effect (Latané & Darley, 1970). However, these behaviors were not matched with an underlying theory until Piaget in 1965 and Kohlberg in 1984 proposed the processes of developing moral judgments. Piaget, the proponent of a cognitive-developmental theory of moral judgment, suggested that moral judgments advance in stages related to changes in the child's general cognitive development (Piaget, 1932). His two-stage theory describes how children judge actions and results of those actions based on their perceptions of the actor's intentions. Prosocial behaviors are not only rooted in a moral conflict, or an emotional center, but also a cognitive base that allows these emotions to be categorized into more specific behaviors. Piaget recognized the role of cognition as the structure for development, and the role of emotion as the fuel for action (Eisenberg, Zhou, & Koller, 2001). Specifically, prosocial behaviors are

exhibited after an interaction between thoughts and feelings. Therefore, as educational researchers, it is pertinent to study the interplay of these factors.

Piaget provided the foundation for study of prosocial behaviors by describing these actions as not only based on emotional development but rather he theorized prosocial actions involve the assessment of a situation through a moral judgment decision in conjunction with emotional awareness. Based on this description, Kohlberg's theory extended, modified, and refined Piaget's theory. His conceptualization did not alter then nature of the relationship between moral development and prosocial behavior but subdivided Piaget's two stages into six categories that are based not only upon whether the child chooses an act, and also the reasons and justifications for those choices as identified by the child or observed in a naturalistic environment (Kohlberg, 1984).

In this way, a child's cognitive development provides a framework for defining prosocial behavior, and imposes a limit on antisocial behavior that is in line with, or explained by, their moral judgments (Eisenberg & Mussen, 1989). The perspectives of Piaget and Kohlberg have been used to confirm the existence of proactive and altruistic behaviors (Crick, 1996; Eisenberg & Fabes, 1998; Hay, 1994; Radke-Yarrow & Zahn-Waxler, 1986). Additionally, the beliefs of Piaget and Kohlberg not only emphasize the development of emotion and cognition but also the impact of socialization and external environment on the expression of prosocial behavior.

Development

Biological maturation and socialization pressures undermine the changes that take place in prosocial behavior throughout development. Individual characteristics of children that have been associated with physical aggression and prosocial behavior range

from age and sex to physical, emotional, cognitive, and social dimensions (Tremblay & LeMarquand, 2001). It is likely that some factors influence prosocial development directly, whereas others influence the parallel strands in early development that underlie overt prosocial behavior. Yarrow and Waxler (1976) indicated that prosocial behavior develops at an early age. Children develop the pre-requisite skills to create prosocial behaviors by being able to identify and experience their own and other's emotions. Further, during the later childhood period, children continue to alter and re-define their understanding of emotional competence and prosocial behavior. Children develop from a belief in basic empathy to having different emotions and valence toward the same object or person around the age of 11 years (Hay & Cook, 2007). Therefore, during the middle to late elementary school years, children become more comprehensive in their emotions and helping behaviors toward other individuals incorporating more interpersonal, emotional, and cognitive processes to effectively interpret a situation. Because children's coping and cognitive skills increase with age, making negative emotions less disruptive, older children experience and report a greater intensity of emotions (Eisenberg & Fabes, 1998).

Consequently, as children grow older they are more able to understand the brevity of a potentially violent situation and the positive impact that can come from prosocial intervention, therefore performing prosocial behaviors with more frequency. However, the motive underlying children's prosocial behaviors change with age. Some of the possible reasons for these age-related trends include the enrichment of role taking and empathic capabilities with greater maturity, higher levels of moral reasoning, increased skill in helping, and more frequent repeated exposures to socialization experiences that

enhance prosocial responding (Eisenberg & Mussen, 1989). The prosocial behaviors of the very young thus attest to the early beginnings and consistency of the human capacities for affiliation, cooperation, altruism, enlightened self-interest, and understanding of social norms, all of which make prosocial behavior possible (Hay & Cook, 2007).

Skill knowledge. The prosocial literature also identifies skill knowledge as an important aspect of engagement in behavior. Children who report higher levels of perceived comfort and efficacy in their knowledge of prosocial skills are both more willing to engage in prosocial behaviors and engage in a greater numbers of actual behaviors, whether measured cross-sectionally or over time (Banyard, 2008; Barr & Higgins-D'Alessandro, 2007). Additionally, children are more likely to act if they know what to do and feel that they possess the necessary resources (Kidron & Fleischman, 2006; Stueve et al., 2006). Most importantly for the performing of these behaviors is the role of the wider social context factors in the development of prosocial behaviors across the lifespan as seen through the peer and gender implications on development (Carlo & Randall, 2001).

Social context. Along with development and skill knowledge in the influence of prosocial behavior are gender and peers. Peers are more likely to intervene prosocially in potentially violent situations if they feel it would be beneficial to them, either internal or externally. The internal benefit would resolve the innate need to help another in distress. The external benefit would be any emotional or physical praise that is gained through their action, such as reward or verbal or nonverbal responses from observers. Proponents of a peer socialization perspective argue that peer relationships provide unique opportunities for children to learn and practice prosocial skills (Hartup, 1992).

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Previous research indicates that the associations between peer relationships and prosocial behavior are particularly important for the understanding of the development of social adjustment or maladjustment in children (Eisenberg & Fabes, 1998).

Prosocial behaviors are observed in both girls and boys, although research has shown a greater expression of prosocial behaviors in females (Doescher & Sugawara, 1989; Zeldin, Savin-Williams, & Small, 1984). Specifically, females tend to engage in more prosocial behaviors, show more perspective taking and be more empathic, sympathetic, and nurturing than males, whereas males have been found to be more physically aggressive and engage in more risky and instrumental forms of prosocial behaviors (Eisenberg & Mussen, 1989; Scourfield, John, Martin, & McGuffin, 2004).

These factors in the external environment provide primarily external benefit for prosocial behavior and also theoretically create a positive environment to build internal benefits. Therefore, when attempting to develop prosocial behaviors, specifically in the school environment, emotion, cognition, and socialization must be emphasized and integrated into intervention and instruction. Consequently, in the school intervention implementation to establish and build upon prosocial underpinnings, based on the theoretical basis of Piaget and Kohlberg, it is important to emphasize not only the emotional relation to instruction, but also the cognitive development of behavior.

Significance of the Problem

There are many reasons that school districts are moving to implement violence prevention curriculum. For example, children who engage in aggression early in life are likely to continue their aggressive behavior throughout the life course (Hester, Baltodano, Gable, & Tonelson, 2003). Early aggressive behavior is strongly associated with later

criminal behavior and deviant peer relations, poor school achievement, school dropout, unemployment. Further, children who are exposed to aggression at school are at risk for behavioral problems, mood disorders, peer rejection, and criminal behavior (Haemaelaeinen & Pulkinnen, 1996; Hay & Pawlby, 2003; Scourfield et al., 2004). On the other hand, prosocial tendencies buffer the negative impact of highly aggressive children against long-term unemployment in adulthood (Kokko, Tremblay, Lacourse, Nagin, & Vitaro, 2006). As with most challenges in education, there is no single or simple solution to make our schools safe. It is a multifaceted, ongoing effort that requires commitment and participation from all stakeholders.

School-wide prevention programs mesh with the overall mission of schools to promote academic excellence, socialization, citizenship, and healthy lives for children. Indeed, schools can serve as ideal settings to redirect children and youth away from aggressive behavior. Cohn (2001) reported that schools that utilize a system-wide intervention for behavior problems reduce office discipline referrals from 20-60%. The prevention of violence in the school environment is critical to developing and maintaining prosocial behaviors in youth so as to create a positive learning environment. Thus, it is imperative for all stakeholders involved to understand the prevalence of a wide range of aggressive behavior and violence in today's schools in order to plan and strategize preventive methods and intervention programs to ensure a safe and productive learning environment.

The scarcity of well-researched and evaluated programs has made it difficult to assess the effectiveness of intervention programs for reducing violence in the school environment. Researchers must use tailored research designs and develop effective and

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rigorous forms of evaluation to assess the impact of intervention programs. Properly evaluated programs showing effectiveness of curricular interventions will be important for school systems in determining policy decisions around selection and use of school violence prevention and prosocial promotion programs students.

One program that shows promise regarding violence prevention and promoting prosocial behaviors in children is the Be a Safety Kid curriculum. This developmentally informed curriculum is tailored to meet the needs of children across Kindergarten through eighth grade with focus on increased teacher-child communications. This school-wide curriculum is based on the ideals of "Responsible Reporting" or appropriate telling of information when a dangerous situation is apparent or known to students. Because students often perform aggressive acts away from adults, peer reporting is often the best way to prevent aggressive acts from occurring (Cashwell, Skinner, & Smith, 2001).

The purpose of the current study is to examine the effectiveness of the Be a Safety Kid curriculum. The Be a Safety Kid curriculum provides direct instruction by local school personnel to children concerning appropriate and inappropriate behavioral conduct at school, how to use prosocial behaviors to resolve conflict, as well as age-appropriate methods for reporting safety concerns. The current study will contribute to the literature base in a number of ways. Specifically, the study will help clarify which prosocial behaviors in youth can be taught or increased through the implementation of a school violence prevention curriculum. A primary assumption of this curriculum is that if educators are to be successful in preventing and remedying aggressive acts at school, merely suppressing incidental antisocial behavior is not enough. Rather, educators must develop programs that encourage incidental prosocial behaviors within natural school

settings (Cashwell et al., 2001). The Be a Safety Kid curriculum expands on these foundations by providing instruction to children about appropriate prosocial behaviors by intentionally including school personnel support toward enhancing the belief of students' in their ability to engage in individual prosocial behaviors.

Research Questions

The current study seeks to evaluate the effectiveness of the comprehensive school-wide violence prevention curriculum called Be a Safety Kid, which incorporates instruction around the knowledge, skill and dispositional characteristics needed to engage in prosocial behaviors and actions to prevent and report aggression in schools with a pre-test post-test measure termed, the S.T.A.R. instrument. This is considered a pilot test for seventh and eighth grade students. Results will be used to inform the impact of a school-wide intervention, program feasibility and utility in a school environment. More specifically, the effects of the Be a Safety Kid curriculum on prosocial behaviors will be measured. A secondary aim of this study is to identify decision-making and frequency of prosocial behaviors that may support or dissuade the use of violence prevention curriculums. The relationships among the outcomes for participants will also be examined, specifically differences between genders.

Research Question 1

Is the S.T.A.R. instrument a valid assessment tool for evaluating knowledge, decreasing aggressive behaviors, and performance of prosocial behaviors?

Research Question 2

Does the Be a Safety Kid curriculum influence knowledge of seventh and eighth grade students in a suburban school as defined as "Responsible Reporting" and the core concepts of the curriculum?

Research Question 2a

Does the Be a Safety Kid curriculum influence knowledge differently for male and female students?

Research Question 3

Does the Be a Safety Kid curriculum influence anticipated performance of prosocial behaviors in seventh and eighth grade students?

Research Question 3a

Does the Be a Safety Kid curriculum influence prosocial behavior differently for male and female students?

CHAPTER II

LITERATURE REVIEW

One of the most important traits of humans, distinguishing us from other species, is the degree of helping, cooperation, and altruism among people. Children who use more prosocial means of solving peer conflicts give more effective and relationship-enhancing solutions to problems and tend to be persuasive rather than aggressive when dealing with others (Mayeux & Cillessen, 2003). These behaviors intended to benefit others is terms prosocial behaviors. This chapter describes the research on prosocial behavior, starting with historical studies and continuing through modern research. Through this process, different developmental processes and underlying foundational theory will be assessed for its explanation of future delinquent and prosocial behavior.

History of Prosocial Behavior

In 1908, William McDougall argued that prosocial behavior was the result of tender emotions created by the parental instinct (McDougall, 1908). Based on McDougall's premise, Lois Murphy began to study sympathy and its behavioral correlates in nursery school age children in the 1930s. The work focused on the positive behaviors of children, specifically those that are proactive and helping in nature, to determine their effectiveness in the nursery school environment (Murphy, 1937). Murphy's definition included the range of responses that now comprise the current prosocial rubric. This early research began with the exploration of helping behaviors and specifically the study of proactive behaviors of individuals and the reasoning for these actions. However, until the 1960s, most research like Murphy's only focused on sympathy, which isolated few behaviors in a prosocial range.

After the brutal murder of Katherine "Kitty" Genovese in 1964, a number of researchers began to examine reasons for individual's prosocial behaviors in emergency situations (Penner, Dovidio, Piliavin, & Schroeder, 2005). During this incident, the young New York woman was stabbed to death near her home in the Kew Gardens section of Queens, New York on March 13, 1964, with neighbors completely aware but unresponsive. The social psychology phenomenon of the bystander effect, or Genovese syndrome, sparked worldwide media coverage and scientific examination of the events (Radke-Yarrow et al., 1976). The general public expressed a feeling of disbelief and confusion after the murder based on the previous beliefs that individuals would readily involve themselves if they saw someone in danger. Because of the extensive coverage and effect of this incident, research began to extend into similar fields of study including childhood helping behavior. In 1968, developmental psychologists such as Darley and Latané, inquired again into children's inclinations to intervene on behalf of another person (Darley & Latané, 1968). They too were impacted by the lack of involvement from bystanders and therefore hoped to discover the development of helping inclinations in children. Their inquiries followed the paradigm of social reinforcement and observational learning studies and theory (Darley & Latané, 1968; Radke Yarrow et al., 1976).

Social scientists became more and more interested in behavior that might be considered contrary to aggression. These behaviors consist of a variety of acts such as helping, aiding, sharing, donating, or assisting. All these acts can be seen as having positive social consequences or demonstrating prosocial behavior (Bar-Tal, 1976; Kokko,

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Tremblay, Lacourse, Nagin, & Vitaro, 2006). Lauren Wispé created the term "prosocial" in 1972 as an antonym for "antisocial" (Wispé, 1972).

Piaget

During this time frame, researchers explored altruistic behaviors using the theoretical views of Kohlberg and Piaget regarding internal moral conflicts (Kohlberg, 1984; Piaget, 1932). Piaget, the proponent of a cognitive-developmental theory of moral judgment, suggested that moral judgments advance in stages related to changes in the child's general cognitive development. He proposed the existence of two broad stages of moral development, an early stage called moral realism and a more mature stage referred to as autonomous morality, or morality of reciprocity (Piaget, 1932). In the first stage the child develops concern and respect for rules. The rightness or wrongness of an act is judged on the basis of the magnitude of its consequences and the extent to which it conforms exactly to established rules. In the more advanced stage, the child realizes that social rules are established and maintained through arbitrary agreements that can be questioned and changed (Bar-Tal, 1976; Piaget, 1932). The child starts to judge acts and results of behavior on the basis of perceived intentions. Specifically, Piaget discussed a cognition that provides the structure for development, whereas emotion supplies the fuel or energetic component (Eisenberg, Zhou, & Koller, 2001).

Piaget also delineated developmental ages at which certain moral development processes occur. Critically, children younger than 12 years old think about moral dilemmas and rules as fixed and absolute. There is an inherent belief that rules are handed down by adults or by God and that one cannot change them (Piaget, 1932). The older child's view is more relativistic. He or she understands that it is permissible to

change rules if everyone agrees and that rules are not sacred and absolute. Rather, they are devices by which humans use to get along cooperatively (Bar-Tal, 1976).

At approximately the same developmental time period, when a child begins to enter the general stage of autonomous morality, between 10 and 12 years old, children's moral thinking also undergoes shifts aligning with Piaget's theoretical orientations. In particular, younger children base their moral judgments more on consequences, whereas older children base their judgments on intentions (Piaget, 1932). Further, Piaget described these behaviors as not only rooted in a moral conflict, or an emotional center, but also as a cognitive base that allows these emotions to be categorized into more specific behaviors. Therefore, the cognition provides the foundation of expression and the experience of emotion signals whether the child or other people need to modify or continue a goal-directed behavior. Hence, such information can shape the child's own behavior (Chesebrough, King, Gullotta, & Bloom, 2004). Therefore, to appropriately study the motives behind prosocial behavior, it is critical to assess children at the appropriate developmental level, specifically after the transition to autonomous morality, so they can more accurately describe their moral reasoning without regard for rigidity of societal rules and judge acts and results of behavior on the basis of perceived intentions.

Kohlberg

Although Kohlberg's theory extended, modified and refined Piaget's theory, his conceptualization did not alter the nature of the relationship between moral development and prosocial behavior. Instead, Kohlberg subdivided Piaget's stages into six categories. The stages include obedience and punishment driven, self-interest driven, interpersonal accord and conformity driven, authority and social order obedience driven, social

contract driven, and universal ethical principles driven (Kohlberg, 1984). Each category was based not only upon whether the child chooses an obedient or need-saving act, but also on the reasons and justifications for the choices (Kohlberg, 1984).

The first two stages join to create the pre-conventional stage, especially common in early childhood, which is exhibited by limited interest in the needs of others, and a focus on the direct consequences of their actions on themselves. The next two stages create the conventional stage, demonstrated in early to middle adolescence with comparing actions against society's views and expectations and the importance of maintaining a functioning society by moral reasoning that transcends individual needs. Lastly, stages 5 and 6 are termed post-conventional and are apparent in adulthood as moral reasoning based on universal ethical principals and that the individual's view may take precedence over society's view (Kohlberg, 1984).

Moral reasoning and judgment, which are manifestations of intelligence, grow and change as other cognitive functions do. The stages of children's cognitive development thus provide a framework for, and impose a limit on, the level of their moral judgments (Eisenberg & Mussen, 1989). Using Kohlberg's designation of moral development stages, prosocial behavior would be most useful to be studied at the conventional level where children and young adolescents have a vested interest in the needs of others that does not have direct bearing on their individual needs.

In this context, prosocial behaviors were examined to elicit reasoning about actions that potentially benefit another at a cost to the self and thus may have a special relationship with prosocial behavior (Eisenberg-Berg & Hand, 1979). For example, children may be more likely to intervene if they feel it would be beneficial to them, either

internally or externally. This internal benefit would resolve the moral conflict described by Kohlberg and Piaget about the innate need to help another in distress.

These theoretical underpinnings created the foundation for the beliefs concerning prosocial behaviors. Both theorists described a cognitive and emotional internal desire of individuals to help others, therefore confirming the existence of not only sympathetic traits, but also those that are proactive and altruistic (Crick, 1996; Eisenberg & Fabes, 1998; Hay, 1994; Radke-Yarrow & Zahn-Waxler, 1986). However, not all theorists aligned with a belief in innate processes. Theorists and researchers who adhere to a social learning perspective tend to emphasize overt observable behaviors, and frequently do not define altruism on the basis of internal motives or cognitive processes (Eisenberg, 1982). These theorists frequently define a broad range of positive behaviors as being altruistic, and they do not clearly differentiate among various positive behaviors (Carlo & Randall, 2001; Chesebrough et al., 2004; Findlay, Girardi, & Coplan, 2006; Hay, 1994).

In contrast, researchers guided by a cognitive-developmental approach attend carefully to cognitive-motivational elements of an individual's behavior, and define altruism with stringent criteria related to the structure of the actor's cognitive motives (Eisenberg, 1982; Kidron & Fleischman, 2006; Penner et al., 2005). These different theories were able to be quantified based on accurate cognitions of events and an underlying emotional need (Mussen & Eisenberg-Berg, 1977).

Building on the works of Piaget and Kohlberg, research during the mid 1970s until the early 1980s investigated when people would help in emergency and non-emergency situations (Penner et al., 2005). Specifically, these researchers hoped to take the theoretical foundations and relate them to real-life situations. Further, they wanted to

investigate whether the cognitions of helping behaviors would change based on the emergency of the situation. Additionally, Latané and Darley's 1970 decision model of bystander intervention proposed that whether or not a person renders aid depends upon the outcomes of a series of prior decisions. These steps involve recognizing whether the individual requires assistance, deciding to take personal responsibility, and deciding how to help (Latané & Darley, 1970; Penner et al., 2005). Their work along with Wispé's categorization began to isolate what is now termed "prosocial behavior."

Definition of Prosocial Behavior

Prosocial behavior is a broad and multidimensional construct defined as behaviors that are positively responsive to others' needs and welfare (Radke-Yarrow & Zahn-Waxler, 1986). As described by early theorists such as Darley, Latané, and Wispé, prosocial behavior can have an internal motivation, creating a context that may be difficult to quantify. Operationalizing a variety of behaviors that reflect a concern for others and an adherence to the norm of social responsibility is difficult (Zeldin, Savin-Williams, & Small, 1984). A number of theorists have yet to agree on a set definition of prosocial behavior that defines research in the field. Previously, research has defined prosocial behavior only as one over-arching construct, not taking into account the many factors involved in taking action in a situation. Specifically, prosocial behavior appears to be a combination definition of sharing, helping, volunteering, and altruistic behavior (Greener, 2000).

Behaviors that aid in interrupting an aggressive or potentially aggressive situation have been defined in the literature as bystander or prosocial behaviors. This description aligns with most definitions describing a behavior intended to assist or benefit others

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(Eisenberg et al., 1999; Findlay et al., 2006; Hay, 1994; Kidron & Fleischman, 2006).

These actions include any behaviors that are helping another even if there is no sacrifice

or benefit to the individual. Altruism is the essence of the prosocial behavior. Measures

of prosocial behavior are considered indicative of an altruistic personality (Eisenberg et

al., 1999).

Altruism is commonly viewed as intrinsically motivated, voluntary behavior

intended to benefit another motivated by concern for others or by internalized values,

goals, and self-rewards rather than by the expectation of concrete or social rewards, or the

desire to avoid punishment or sanctions (Eisenberg, Pasternack, Cameron, & Tryon,

1984; McKinley & Carlo, 2007). What determines whether or not these and other

prosocial actions are considered altruistic is the motive underlying the behavior

(Eisenberg & Mussen, 1989). Therefore, altruism creates a foundation for prosocial

behavior because of its intrinsically motivated basis to benefit another person without

regard for personal consequence. Additionally, internal processes, such as sympathy,

empathy, and moral cognitions, are believed to motivate other-oriented or prosocial

behavior (Eisenberg et al., 2002). These additional traits add to the multitude of

prosocial behaviors describing a basic need to help another individual.

Carlo and Randall (2001) developed one of the most widely used studies

regarding the examination of prosocial behaviors through the study of 249 college

students consisting of 104 males and 145 females who were enrolled in undergraduate

psychology courses at a Midwestern state university to study the correlates and structure

of prosocial behaviors in late adolescents. The researchers divided prosocial behavior

into categories after administration of the Prosocial Tendencies Measure and Prosocial

Moral Reasoning and a consequent factor analysis. Based on the findings, prosocial behavior was divided into altruistic (voluntary helping motivated primarily by the concern for the needs and welfare of another), public (in front of others and self-interested), anonymous (actor remains unknown), dire (in a crisis), emotional (in response to another person's emotion), and compliant (when requested) behaviors (Barr & Higgins-Alessandro, 2007). However, these designations of prosocial behavior may only tap a limited array of prosocial behaviors that can be observed and lack a more detailed descriptive analysis of behaviors.

At a descriptive level, prosocial behaviors are responding to signs of suffering, need, or danger in another person or animal, such as, assisting, sharing, being kind and considerate, comforting, cooperating, protecting someone from harm, rescuing someone from danger, and feeling empathy and sympathy (Radke-Yarrow & Zahn-Waxler, 1986). These specific observable behaviors help to designate specific actions that can correspond with prosocial behaviors. It appears through the work of Carlo and Randall and others that attempts have been made to describe prosocial behavior to quantifiable means. However, there are still significant limitations in current research. Specifically, studies have focused on behaviors only based on external environmental cues with samples limited to late adolescents. These definitions may also be limited based on particular behaviors that can only be used in specific situations.

To account for some of the gaps in the research, definitions have been broadened to include more behaviors that could be observed in more universal situations. For example, Jackson and Tisak (2001) delineated prosocial behavior into the classification of four categories of helping, sharing, cooperating, and comforting. These labels take a

broader approach to the construct of prosocial behavior and focus less on external events and more on internal motives. Their model also accounts for more types of behaviors. These categories represent four different types of positive behaviors that are seen in multiple environments, including the school.

The most recent study focused on a group of 83 children, with 26 children between 7-8 years old, 30 between 9-10 years old, and 27 children between 11-12 years old. The subjects were recruited from public schools located in the Midwestern United States and were from working and middle class families (Jackson & Tisak, 2001). Based on the sample's reading of prosocial-related stories and self and peer evaluation, differences were found by type of prosocial behavior and by age, and also an interaction between variables. Helping behavior refers to responses to people who have incurred unintentional negative consequences. Sharing is defined as giving up one's own resources to benefit another. Cooperating entails individuals coordinating each of their actions to obtain a specific goal. Finally, comforting describes actions taken to improve the overall mood of another person (Jackson & Tisak, 2001). The study helped to provide a foundation for a more generalized definition of prosocial behavior.

It is important to study helping, sharing, cooperating, and comforting because they represent prosocial behaviors that are within the realm of young children's experiences, which is critical in assessing young children's social thinking (Tisak, 1995). However, using a categorization of four major types of behavior had significant limitations including not quantifying cognitive schema as to why children cognitively choose any behavior in the four categories. In addition, the questions used in the instrument did not differentiate between developmental age groups. The definition may

also be too broadly defined with significant overlap between the designations, and these behaviors are not specifically based on external cues. Even so, the categorization helps to provide a more broad and comprehensive definition of different behaviors that can be quantified.

In a similar research study, Hay and Cook (2007) attempted to define prosocial behaviors in three strands characterized as feeling for another, working with another, and ministering to another. These three classifications align closely with previous research although have distinct differences. Feeling for another includes friendliness, affection, and empathic concern. Working with another is cooperating to solve problems and meet mutual goals, sharing resources, and helping another accomplish tasks. Lastly, ministering to another is nurturing, comforting, providing resources that another person requires, and generally responding to another's needs and wishes (Hay & Cook, 2007). However, there are also limitations to this categorization. Splitting a broad construct of behaviors into only three groups makes the behaviors difficult to quantify and more difficult for children to define with specific behaviors that correspond with each strand.

Data from these studies imply that prosocial behaviors are interrelated whereas other studies have also shown low intercorrelations across the various prosocial behaviors (Avgitidou, 2001). Specifically, three Greek kindergarten classes in the same middle class area of Thessaloniki, Greece, were examined consisting of 20 children each with similar socioeconomic status. The sample consisted of children ages 3 years 9 months to 5 years 6 months (Avgitidou, 2001). Significant overlap was found between prosocial behaviors, especially those similar in nature, such as sharing, cooperating, or working

with another. Although the study had multicultural relevance, it lacked generalizability to a wider population or those children more at risk for violence.

Penner et al. (2005) attempted to further contract the foundation of prosocial behavior to only consist of two domains. The first concerns prosocial thoughts and feelings, such as a sense of responsibility and a tendency to experience cognitive and affective empathy. The second factor is the self-perception that one is a helpful and competent individual. Researchers conducted a literature review of three levels of prosocial behavior that include micro, meso, and macro levels. Conclusions verified a constellation of traits that form a prosocial personality that is consistently related to a broad range of prosocial behaviors. However, it is not clear whether these attributes lead to prosocial responses (Penner et al., 2005). Additionally, the definition consisting of only two types may be too general for prosocial behavior and also does not designate specific behavioral traits.

Although the categorization of prosocial behaviors needs future research, the importance and implications of prosocial tendencies is clear. At this time researchers are unable to verify the true feelings and thoughts of the investigated subjects. Therefore, the proposed definition is mostly theoretical, although empirical studies should attempt to control the necessary variables as much as possible. In particular, future research should be more comprehensive with an integrative understanding of how certain cognitive, neurological, and genetic processes contribute to the prosocial disposition.

Development of Prosocial Behaviors in Children

Prosocial behaviors are central to the development of a child's social competence (Mussen & Eisenberg-Berg, 1977). Evidence bearing on the early development of

prosocial behavior is somewhat limited, due to the fact that most studies have been based on very small and not always representative samples, consist mainly of cross-sectional comparisons, concentrate attention on responses to distress, or are based on informants' ratings (Hay & Cook, 2007). Thus many of the studies lack adequate statistical power to discern clear developmental trends in the full range of prosocial behavior. However, there have been broad generalized conclusions drawn from these contradictory studies.

Yarrow and Waxler (1976) indicated that prosocial behavior develops at an early age. They believed children 1-2 years old often respond to others' emotional and physical distress. Although infants 6-12 months old show little reaction to the distress of others, children who are 12-18 months old frequently react with agitation or sustained attention. By 18 months of age, children often attempt to comfort others who are suffering, and by 24 months they frequently respond by bringing objects to the distressed person, verbally sympathizing, and making suggestions (Eisenberg & Mussen, 1989).

Toddlers spend much of their time in independent play, and they have relatively few opportunities to respond to other people's needs. However, before the age of 2, children display prosocial actions with their parents such as helping and comforting (Rheingold, 1982). Specifically, in the first two years of life, prosocial activities are present yet relatively infrequent (Hay & Cook, 2007). From 2 years of age on, children are interested in emotions. By preschool, most children can infer basic emotions from expressions or situations. Throughout the rest of the preschool period, children come to understand many aspects of the expression and situational elicitation of basic emotions. They gradually come to differentiate among the negative emotions of self and other.

Toward the end of this developmental period, they begin to comprehend complex dimensions of emotional experiences (Chesebrough et al., 2004).

By the end of the preschool period, children can identify basic emotional expressions and situations and are able to talk meaningfully about their own and others' emotions (Roberts & Strayer, 1996). Findings suggest that children start to differentially attribute emotions to self and to others between ages 4 and 5 years. This period is also a time when children develop a theory of other persons' minds and can differentiate between the perspectives of self and other (Malti, Gummerum, & Buchmann, 2007). Therefore, at an early age, children develop the pre-requisite skills to create prosocial behaviors by being able to identify and experience their own and other's emotions. Further, during the later childhood period, children continue to alter and re-define their understanding of emotional competence and prosocial behavior. Children develop from a belief in basic empathy to having different emotions and valence toward the same object or person around the age of 11 years old (Hay & Cook, 2007). Therefore, during the middle elementary school years, children become more comprehensive in their emotions and helping behaviors toward other individuals incorporating more interpersonal, emotional, and cognitive processes to effectively interpret a situation.

For example, some studies demonstrate that prosocial behavior increases from kindergarten through a peak in middle elementary school years, followed by a decline to its lowest point in early adolescence, and then rise again in early adulthood while other studies show different development for different categories of prosocial behavior (Malti et al., 2007; Midlarsky & Hannah, 1985). These conclusions may be attributed to children's increasing awareness of the social cues governing prosocial behavior,

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children's increasing capacity to regulate their emotions to the distress of others and to find alternative ways of responding besides distress, and children's greater ability to pursue self-interests, which diminishes the need for cooperation and generosity with others at all times (Hay, 1994). It is logical to expect young children who can interpret and react to others' emotional states and needs to share more than children who center on their own, rather than others' needs (Eisenberg-Berg & Hand, 1979).

A study conducted by Eisenberg-Berg and Hand (1979) consisted of 18 boys and 17 girls aged 48-63 months old that attended class at a university preschool with a majority of Caucasian children from middle and upper-middle class families. Based on observations and stories containing moral dilemmas, conclusions were reached reflecting a relationship between reasoning about prosocial conflict and prosocial behavior in a naturalistic setting (Eisenberg-Berg & Hand, 1979). Specifically, children who are more aware of the needs of others than their own are more willing to demonstrate prosocial behaviors.

As children grow older, they usually display more prosocial behavior (Zeldin et al., 1984). In fact, the development of prosocial behavior has been shown to increase with age and stabilize by late adolescence (Eisenberg & Fabes, 1998; Fabes, Carlo, Kupanoff, & Laible, 1999). One would expect that with increasing cognitive capacities, continued emotional development, and an increasing willingness and ability to empathize with other children's problems, combined with a widening social environment, children will likely develop higher levels of prosocial behavior with increasing age. Although there are distinct differences in the examination of the development of prosocial behaviors, there is a general consensus that there is some increase in prosocial behavior

in adolescence with the increase in socialization opportunities and general development. There is limited evidence that physical aggression declines with age and there are theoretical indications but no clear empirical data suggesting that prosocial behavior increases (Kokko et al., 2006). In the examination of developmental literature, there are a multitude of reasons for the increase of prosocial behavior in adolescence.

Along with the influence of the developmental process on prosocial behavior, puberty may influence prosocial and moral behavior. Increased interest in romantic and sexual relationships may foster prosocial and moral development by focusing adolescents' attention on engaging in intimate relationships and on behaviors that foster and promote intimacy. The experiences gained may increase adolescents' capacity for sympathy and empathy, both of which are important correlates of prosocial and moral behavior. However, the hormonal changes associated with puberty can also lead to increased aggressiveness, irritability, and mood swings. Such changes may inhibit an adolescent's tendency to engage or help others. Also, puberty may bring about an increase in boys' and girls' adherence to gender-typed norms regarding prosocial behavior and aggression (Fabes et al., 1999). Specifically, girls may focus more toward societal norms such as nurturing while boys may exhibit more outwardly prosocial behaviors that include action-oriented processes.

Because children's coping and cognitive skills increase with age, making negative emotions less disruptive, older children experience and report a greater intensity of negative emotions. Consequently, as children grow older they are more able to understand the brevity of a potentially violent situation and the positive impact that can come from prosocial intervention. However, the motive underlying children's prosocial

behaviors clearly change with age. Some of the possible reasons for these age-related trends include the enrichment of role taking and empathic capabilities with greater maturity, higher levels of moral reasoning, increased skill in helping, and more frequent repeated exposures to socialization experiences that enhance prosocial responding (Eisenberg & Mussen, 1989). It is unclear to what degree constitutional and environmental factors contribute to stability in prosocial tendencies, but it appears that stable individual differences in empathy-related responding emerge by childhood and likely account for some uniformity over time (Eisenberg et al., 2002). The prosocial behaviors of the very young thus attest to the early beginnings and consistency of the human capacities for affiliation, cooperation, altruism, enlightened self-interest, and understanding of social norms, all of which make prosocial behavior possible (Hay & Cook, 2007).

Gender and Peers as Influential Factors

Biological maturation and socialization pressures undermine the changes that take place in prosocial behavior throughout development. Individual characteristics of children that have been associated with physical aggression and prosocial behavior range from age and sex to physical, emotional, cognitive, and social dimensions (Tremblay & LeMarquand, 2001). It is likely that some factors influence prosocial development directly, whereas others influence the parallel strands in early development that underlie overt prosocial behavior. Most significant in the influence of prosocial behavior are gender, family, and peers.

Gender

Prosocial behaviors are observed in both girls and boys, although research has shown a greater expression of prosocial behaviors in females (Doescher & Sugawara, 1989; Zeldin et al., 1984). Specifically, females tend to engage in more prosocial behaviors, show more perspective taking and be more empathic, sympathetic, and nurturing than males, whereas males have been found to be more physically aggressive and engage in more risky and instrumental forms of prosocial behaviors. These differences are especially pronounced in emotionally evocative situations (Froming, Nasby, & McManus, 1998; McKinley & Carlo, 2007). While there are few data indicating that during early childhood boys and girls differ in the types of prosocial behavior they initiate, divergent patterns have been observed after early childhood (Chesebrough et al., 2004; Zeldin et al., 1984). These gender differences in prosocial and aggressive behaviors then consolidate and emerge by adolescence into more similar patterns (Bar-Tal, 1976; McKinley & Carlo, 2007).

Gender differences in prosocial and altruistic behaviors have been hypothesized to be due to differences in gender role created by differential socialization experiences (Doescher & Sugawara, 1989). During the toddler years, parents appear to hold different goals and standards of behavior for their sons and daughters, which may contribute to the gender differentiation over childhood (Hay & Cook, 2007). In most societies, caring and an other-orientation are associated with the feminine role and with the personality characteristic of femininity. People high in femininity tend to be more likely to engage in other-oriented prosocial reasoning and behavior, and to be motivated to take another's perspective. Femininity has been positively correlated with empathy, sympathy,

perspective taking, and moral reasoning, which all overlap positively with prosocial

behavior (Eisenberg et al., 2001; Roberts & Strayer, 1996). For example, girls are taught

to pay attention to other people's feelings and needs and mothers respond differently to

girls' and boys' moral transgressions (Hay & Cook, 2007). However, gender is only a

partial influence on the production and expression of prosocial behaviors.

Peers

Children provide each other with consistent opportunities to learn prosocial skills

within the context of peer group interactions. Peers can be effective agents of

reinforcement that facilitate the acquisition and modification of prosocial behavior

(Eisenberg & Mussen, 1989). Prosocial children are generally perceived positively and

tend to be popular with their peers (Warden & Mackinnon, 2003). Eisenberg and Fabes'

(1998) review of the literature supports the notion that prosocial children tend to have

positive peer relations. Thus, children who act in a prosocial manner are liked by their

peers and elicit positive regard. One possible explanation for this relationship is that

social encounters and experiences have a direct effect on the development and

demonstration of prosocial behavior.

Proponents of a peer socialization perspective argue that peer relationships

provide unique opportunities for children to learn and practice prosocial skills (Hartup,

1992). Previous research indicates that the associations between peer relationships and

prosocial behavior are particularly important for the understanding of the development of

social adjustment or maladjustment in children. Adolescents whose best friends display

prosocial behaviors also tend to engage in such behaviors themselves and children who

exhibit prosocial behavior are more likely to elicit prosocial responses from others and

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select similar others as friends and partners (Kidron & Fleischman, 2006; Scourfield, John, Martin, & McGuffin, 2004).

Although it is unclear to what degree constitutional and environmental factors contribute to consistency in prosocial tendencies, the combination of these factors may be expected to result in some inter-individual consistency in prosocial behavior from childhood to adulthood (Eisenberg et al., 1999). Conclusively, it is important for school professionals, especially school psychologists, to understand the implications of various aspects of the child's development in order to help create positive prosocial skills.

Moral Processes of Prosocial Behaviors

Prosocial behavior has been related to perceived competence, emotional well-being, and altruistic moral reasoning (Wentzel, Filisetti, & Looney, 2007). Children who exhibit higher prosocial behaviors are less likely to be rejected by their peers reinforcing the notion that the acquisition of prosocial skills is conducive to social acceptance (Greener, 2000). Prosocial children tend to have well developed perspective-taking abilities and moral reasoning, achieving success and satisfaction, social competence, academic ability, and positive personality characteristics, do well academically, and have high self-esteem (Blair, Denham, Kochanoff, & Whipple, 2004; Jackson & Tisak, 2001). In general, young children with prosocial tendencies also display constructive coping skills, abilities to regulate attention, tend to be well adjusted, good at coping, demonstrate self-control and low levels of emotional negativity (Eisenberg & Mussen, 1989; Wentzel & McNamara, 1999). Therefore is it critical to display a cognitive and emotional framework that involves empathy, sympathy, perspective taking, and moral reasoning (Hay & Pawlby, 2003).

Empathy

In a comprehensive study, Miller, Eisenberg, Fabes, and Shell (1996) found that empathy and moral reasoning were positively related to prosocial behavior towards peers. Additionally, children high in both moral reasoning and emotional responding were most likely to assist a peer in distress (Blair, Denham, Kochanoff, & Whipple, 2004). Most salient in the view of these researchers is the strong relationship between prosocial behavior and empathy.

Empathy is defined as an emotional reaction elicited by and congruent with another's emotional state or condition (Eisenberg & Fabes, 1998; Eisenberg et al., 2002; Eisenberg et al., 1999; Malti et al., 2007). This definition includes both recognizing and experiencing another person's emotional state. Empathy is an affective response that stems from one's apprehension or comprehension of another's emotional state or condition and involves feeling similar to what the other person is feeling or would be expected to feel. Empathy contributes to acts such as attempting to comfort and help and the ability to take turns and cooperate through sharing (Hoffman, 1987). It is viewed as a fundamental social skill that allows the individual to anticipate, understand, and experience others' points of view that are both part of an enduring personality trait (Barr & Higgins-D'Alessandro, 2007; Eisenberg et al., 1999).

Conceptually, empathy is linked to prosocial behavior because prosocial responding is dependent upon understanding another person, regulating personal emotions, and initiating correct social interaction (Miller, Eisenberg, Fabes, & Shell, 1996). Both prosocial behavior and empathy are linked to temperamental predispositions such as emotional regulation, personality, and temperament that likely have a

constitutional basis demonstrating there is consistency over time in prosocial behavior (Eisenberg et al., 1999). It has been well established that children high in empathy also show more prosocial tendencies such as comforting, altruistic, and responsive behaviors toward peers (Eisenberg & Fabes, 1992; Findlay et al., 2006). Generally the assumption has been that individuals who respond empathically to others' distress or sadness, both in general and in specific situations, will be more likely to assist a needy other than will less empathic persons. This presumably occurs for one of the following reasons: to reduce the needy other's distress because of sympathetic concern or to reduce one's own negative affective state induced by empathizing (Lennon & Eisenberg, 1987). Consequently, empathy relates heavily to the demonstration of prosocial behavior with the need to understand another person's perspective in order to exhibit helping behaviors.

Sympathy

McKinley & Carlo (2007) hypothesized that empathy and sympathy are precursors to prosocial behavior. Specifically, being prosocial can make an individual more attentive and sensitive to the troubles of others (McKinley & Carlo, 2007). Sympathy involves other-oriented motivation and involves feelings of concern for the other, but the sympathetic person does not necessarily feel the same feeling as the sympathized person (Eisenberg et al., 1999; Malti et al., 2007). Sympathy has been linked empirically to selflessly motivated helping, or prosocial behavior, especially behavior that is likely to be based on other-oriented emotions and values (Eisenberg et al., 2002; Eisenberg et al., 2001; Eisenberg et al., 1999; Fabes et al., 1999). In turn, this increase in feeling sorrow for another, or sympathy, might prevent the individual from engaging in aggressive behaviors (McKinley & Carlo, 2007).

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Perspective Taking

In addition to the affective skills of empathy and sympathy, cognitive perspective taking has been hypothesized to promote sympathy and has been linked to prosocial behavior (Barr & Higgins-Alessandro, 2007; Eisenberg et al., 2002; Fabes et al., 1999). Sympathy and perspective taking and to a limited degree empathy can be considered measures of a prosocial disposition which are expected to motivate altruistic behavior (Eisenberg et al., 1999). Cognitive perspective taking involves cognitively taking the role of the other or accessing information from memory to assist in an individual's understanding of another's situation, including their social context (Eisenberg et al., 2002; Fabes et al., 1999; McKinley & Carlo, 2007).

Perspective taking affects both prosocial moral judgment and sympathy, and these have direct effects on self-reported prosocial behavior. Taking the perspective of another in need often leads to sympathizing, which may increase the potential helper's motivation to see the other's need reduced (Eisenberg et al., 2001). The ability to understand the situation from the other person's perspective in turn leads to the ability to make decisions based on this perspective.

Moral Reasoning

Moral reasoning is defined as the ability or tendency to think about and make decisions in situations in which there may be conflicting values, norms, rules or laws, needs, or desires reflecting a transition from egotistic, self-focused concerns to societal and conventional concerns, to universal and ethically principled human concerns (Fabes et al., 1999). Moral reasoning is associated with prosocial and moral behaviors in adolescence and related negatively to delinquency, cheating, aggression, and other forms

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of antisocial behaviors (Eisenberg et al., 2002; Fabes et al., 1999). Although moral reasoning is generally not viewed as an aspect of personality, it seems to contribute to the consolidation of a prosocial disposition and could be expected to correlate with prosocial personality characteristics (Eisenberg et al., 2002). Thus, sympathy, perspective taking, empathy, and to a limited degree, moral reasoning, can be considered measures of a prosocial disposition that are expected to motivate altruistic behavior. To best understand the intervening variables involved in the decision to demonstrate prosocial behavior, assessment and intervention must be used to distinguish each motivational factor and prosocial behavior and its influence on the situation.

Prosocial Behavior and Reduction of Aggressive Behavior

It is generally expected that childhood socialization will gradually increase tendencies to help others and reduce tendencies to be physically aggressive toward peers because of the development of social relationships. Left untreated, children's behavior problems typically multiply, intensify, and diversify over time, thus putting the child at increased risk for academic failure, social isolation, and peer rejection (Hester, Baltodano, Gable, & Tonelson, 2003). Aggressive and prosocial behaviors are independent individual characteristics, residing in the same individual. Prosocial disposition and aggression are independent behavioral strategies, rather than representing opposite ends of the same personality trait (Kokko et al., 2006).

Childhood aggression is the best-known behavioral predictor of future social adjustment difficulties. There are two distinct categories of aggressive children, those that manifest aggressive behavior in childhood and those that manifest aggressive behavior in adolescence. It is those children with early onset aggression that are likely to

engage in aggressive behavior throughout the life course (Hester et al., 2003). Prosocial behavior is an important correlate of social adjustment. Children who are rated the least prosocial in their behavior are more likely to have social adjustment problems such as being rejected or neglected by their peer groups (Crick, 1996; Greener, 2000). Children who show excessively high or low rates of prosocial behavior may be at risk for behavioral problems and affective disorders (Hay & Pawlby, 2003). Low levels of prosocial behavior have been linked to the externalizing disorders of childhood and high levels have been significantly related to internalizing or mood disorders (LaFreniere, Provost, & Dubeau, 1992; Scourfield et al., 2004). Prosocial tendencies have been shown to buffer an aggressive child against peer rejection, criminal behavior, and long-term unemployment and negatively linked to later criminality, independently of aggression (Haemaelaeinen & Pulkinnen, 1996; Kokko et al., 2006). Nonetheless, evidence between aggression and prosocial behavior is not clear. Most children exhibit at least some level of both prosocial and aggressive behaviors. Several have theorized that measures of prosocial behavior and aggression are orthogonal while others have described that prosocial and aggressive behaviors can co-exist and have little or no direct relation with each other (McKinley & Carlo, 2007). However, most studies have stated that prosocial behavior is an important buffer that may protect against the development of aggressive or antisocial behavior in children as they become older (McKinley & Carlo, 2007). Prosocial behavior has been demonstrated in the past to affect cognitive components associated with aggression. Specifically, negative relations have been found between sympathy and physical, verbal, and indirect aggression and antisocial behavior (McKinley & Carlo, 2007).

As researchers have worked diligently to examine the cognitive aspects or choice systems inherent in prosocial behavior as well as the definitions of categories of consistent prosocial behavior, much of the present focus has shifted to utilizing this research in an effort to decrease the most detrimental behaviors in youth today. Concerns about the increase of violent and aggressive behavior in the nation's schools have been preeminent in social science research in an attempt to understand the rapid increase in the last decade. Therefore, the examination of the relationship between the prosocial behavior and violence is critical.

Prosocial Behavior and School Violence

These delineations of behaviors help us to attempt to quantify and separate observable events to better explain the cognitive and emotional components of prosocial behavior. Specifically for the study of children, the school environment is crucial because it provides the most opportunities for children to interact with others. Even more pertinent to the enhancement of prosocial behavior study is during a potentially violent situation. In the context of school violence, bystanders are typically thought of as students who witness fights or other acts of physical aggression. However, these situations are not isolated to physical violence. They can also focus on situations where the bystander may possess information that makes them believe that future violence is likely (Stueve et al., 2006). Furthermore, bystanders are not passive observers. Through their prosocial actions, they often influence whether and how volatile situations unfold. To evaluate the degree of effectiveness of interruption of prosocial behavior, the development of these behaviors need to be examined to create a more comprehensive picture.

Perspectives on the Demonstration of Prosocial Behavior

Encouraging children to act prosocially, both in response to specific requests and as unsolicited prosocial acts, is undoubtedly an aim of most parents and teachers. However, young children often fail to perform spontaneous acts of prosocial behavior (Grusec, 1991). Sy, DeMeis, and Scheinfield (2003) studied 53 preschool children consisting of 26 males and 27 females recruited from a total of 4 preschools in the Midwest and Northeast regions of the United States. The sample included children from white upper middle class families that examined 6 socio-moral stories concerning prosocial behavior. Children's understanding of situational affect suggests that self focused concerns, such as adult approval and material gain, as well as other-focused concerns, such as reducing another's distress, are important outcomes for children in prosocial and/or victimization situations (Sy, DeMeis, & Scheinfield, 2003). Young children must learn to analyze social situations, set social goals, and determine effective ways to solve differences that arise between them and their peers.

Skill Knowledge

The prosocial literature also identifies skill knowledge and development as an important aspect of engagement in behavior. Children who report higher levels of perceived effectiveness report both more willingness to engage in prosocial behaviors and greater numbers of actual behaviors, whether measured cross-sectionally or over time (Banyard, 2008; Barr & Higgins-D'Alessandro, 2007). Additionally, children are more likely to act if they know what to do and feel that they possess the necessary resources (Kidron & Fleischman, 2006; Stueve et al., 2006). Most importantly for the performing of these behaviors is the role of the wider social context factors in the development of

prosocial behaviors across the lifespan as seen through the peer and familial implications on development (Carlo & Randall, 2001).

Demonstration of Prosocial Behaviors

In the observation of prosocial behaviors, there are numerous reasons as to why children choose whether to intervene in a violent or potentially violent situation. Specifically, it is important to consider the age of the child, the prosocial context, as well as the relationship of the recipient to the bystander. Moreover, the characteristics of the recipient should be considered. Children tend to be more helpful, more generous, and more complimentary with their friends than with others who are less familiar (Newcomb, Brady, & Hartup, 1979). In addition to whether the recipient is a friend or non-friend, research has shown that some children are more likely to help and share with children who are of a different age, especially when the children are younger. Zeldin et al. (1984) studied 12 adolescent males ranging from 14 to 16 years old largely from Caucasian, Protestant, and two-parent families attending a 5-week wilderness travel program sponsored by a private camp. Observations were coded and collected on multiple occasions based on type of prosocial behavior and recipient of the actions. It was found that in addition to being more likely to help a friend, the number of persons present in a situation strongly affects the likelihood that an individual will choose to help. Specifically, individuals are less likely to help as the number of potential helpers increases (Zeldin et al., 1984). An individual who witnesses a potential emergency alone is more likely to intervene than one who witnesses it with other bystanders. A historical example would be the Kitty Genovese incident. The presence of others play a dual role, the others supply cues as to appropriate behavior in the face of novel stimuli, and at the

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same time they allow a diffusion of responsibility, such that no one person can be blamed for not having intervened (Bar-Tal, 1976).

Various prosocial acts frequently differ in costs, benefits, and other factors that might influence both the likelihood of their being performed and their moral significance. Moreover, it appears that the factors that elicit a prosocial act also influence it's meaning for the individual and consequently the likelihood of its being performed by persons with different characteristics (Eisenberg et al., 1984). External reasons for behaving reflect fear of punishment or a desire to comply. Internal reasons reflect desires to maintain a positive sense of self either through gaining social approval or avoiding negative feelings of guilt or shame, and personal valuing of prosocial behavior. Research suggests that adolescents can have multiple reasons guiding their behavior.

A study was conducted with 339 sixth and eighth middle school students from a predominantly suburban middle-class community in a mid-Atlantic state (Wentzel, Filisetti, & Looney, 2007). The students were observed in the classroom and given the Weinberger Adjustment Inventory-Short Form, Davis Interpersonal Reactivity Index, the Self-Perception Profile for Adolescents, Prosocial Self-Regulation Questionnaire, peer nominations, teacher rating, and the Classroom Life Measure (Wentzel et al., 2007). Additionally, a wide variety of primes can affect the likelihood that a person will offer to help. The proposed factors such as similarity or common fate might give rise to a sense of "we-ness" or a sense of belonging to a common group. This sense analogous to self-other merging facilitates empathy, which in turn leads to more prosocial behaviors (Penner et al., 2005).

Recently, the social information processing theory that forms a foundation for training in responsible decisions making, designated steps taken by individuals when making moral decisions. These include encoding information about the problem from the social surround, interpreting it, forming goals, then selecting and enacting the most favorable response (Chesebrough et al., 2004). In encoding and interpreting steps, the child takes in the important information of the others' behavior, as well as his/her own arousal level, the intensity of the emotions felt, and his/her relationship with the other. In clarification of goals, the child formulates goals, which are themselves focused arousal states that function to motivate him or her to produce outcomes. In the response generation, evaluation, and decision, access to and choice of actual behavioral choices differ depending on the child's goals (Chesebrough et al., 2004). These steps provide the framework for researchers to describe specific behaviors that align with these steps.

Darley and Latané (1968) further discussed the reasoning for bystander and consequently prosocial behavior by identifying situational factors that could facilitate or inhibit helping of bystanders to emergencies. They conducted over forty experiments that examined what reasons affect helping behavior and created two defining reasons, diffusion of responsibility and pluralistic ignorance. Latané and Darley contended that the obligation of each individual to provide assistance is reduced when several potential helpers are available, therefore diffusing the responsibility on one individual.

To examine this theory, subjects, college students, were told they were supposed to discuss problems with university life. They were put into separate rooms and told to talk over an intercom and that no one would be listening. During the discussion, one of the subjects began to have an epileptic seizure and pleaded for help. When subjects

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believed they were the only other person in the discussion, 85% left the room to seek help. When subjects believed 4 other people were also having the discussion, only 31% went to help (Darley & Latané, 1968).

The second explanation was pluralistic ignorance. According to this view, individuals are not sure whether a situation is an emergency and look toward surrounding individuals to see if they are responding. A conclusion is reached that it is not a real emergency if no one else is reacting to the situation (Darley and Latané, 1968). Pluralistic ignorance was analyzed by having subjects fill out a survey by themselves or in groups of three. While they were completing the survey, smoke started to pour into the room through a vent. After 4 minutes of smoke, 75% of subjects who were alone reported the smoke to the researcher, while only 12% of the subjects in groups reported it (Darley and Latané, 1968).

Darley and Latané (1968) continued their research by discussing key steps in the process of deciding to be a prosocial bystander, including noticing what is happening and labeling it as a problem in which help is needed, taking responsibility, deciding what actions to take, and feeling one has the skills to take action and can do so safely. Crick and Dodge (1994) hypothesized that a child's behavioral response to a situation is based on 6 steps including encoding relevant internal and external cues, interpreting those cues, selecting a goal, assessing possible responses, choosing an appropriate response, and enacting that response.

Another model focuses on how individuals weigh the benefits and costs of different course of action, how they evaluate the normative expectations of others, and how they assess their competence to act (Ajzen, 2002). First, the more ambiguous and

less serious a situation, the slower children with prosocial behaviors are to notice warning signs and are less likely to intervene (Latané & Nida, 1981; Shotland & Goodstein, 1984). Also, if multiple bystanders are present, if bystanders misperceive or underestimate the gravity of the situation and the degree of intimacy or relational distance between an aggressor and victim may stop prosocial involvement (Stueve et al., 2006). Additionally, a child who behaves prosocially may do so out of concern for the other person, because they feel obligated to act, to impress an adult, to feel better, or to get something in return (Jackson & Tisak, 2001). Lastly, socially cohesive groups of bystanders are more likely to respond to emergency situations than are strangers, further supporting the need for a normative environment that supports social responsibility (Horowitz, 1971; Latané & Nida, 1981; Rutkowski, Gruder, & Romer, 1983).

Piliavin and Piliavin (1972) also assessed reasons individuals decide whether to intervene in a problematic situation based on a more biologically-based perspective. They assume that observation of an emergency situation elicits a state of physiological arousal in the bystander. The feeling of arousal is the first phase in the bystander's reaction to an emergency situation. The degree of arousal he experiences depends on a number of variables: 1) perceived severity of the emergency situation, the greater the severity the higher the arousal, 2) physical distance from the emergency, the closer the bystander is to the emergency the higher the arousal, 3) feelings of empathy, if the bystander feels empathy as a result of perceived similarity to the victim or emotional attachment to the victim, then he will experience a high level of arousal, 4) length of the emergency, the longer the emergency lasts without any help, the higher the arousal (Bar-Tal, 1976; Piliavin & Piliavin, 1972). The model postulates that the arousal is aversive

and the bystander is therefore motivated to reduce or eliminate it. They suggested that the choice of a particular action depends on the costs and rewards involved in helping and not helping. Unfortunately, simply observing children's behaviors reveals very little about their thinking about prosocial behavior.

Assessment

Researchers have employed several methods to assess children's reasoning about prosocial behavior. In contrived settings, such as the laboratory, measurements may not be ecologically valid. However, it is difficult to obtain observations of prosocial behavior as it naturally occurs because of subjects' responses to being observed (Eisenberg, 1982). Furthermore, data on prosocial development obtained by verbal report may be inaccurate owing to purposeful distortions, lapses in memory, or misrepresentation stemming from unconscious psychological needs (Eisenberg, 1982). In brief, there are potential pitfalls with all the commonly used measures of prosocial development.

In measuring prosocial behavior, there are significant assessment methods that overlap through a majority of research. Methods include varying the situation in such a way as to affect the child's motivations and then identifying if and when the child behaves prosocially (Bar-Tal, Raviv, & Leiser, 1980), asking children about their motives for their own naturally occurring behaviors (Damon, 1977), and asking children to evaluate prosocial behavior through peer ratings (Tisak & Ford, 1986). To quantify these methods, most researchers use global assessments.

Global assessment measures the likelihood of engaging in a prosocial behavior across situations and personal motivations. These assessments can include aspects of a

broader construct that subsumes prosocial behavior. Methods involved in assessing

prosocial behavior include observation, situational tests, questionnaires, ratings, peer

nominations, and self-report. Self-report scores, although positively correlated with peer-

report scores, are likely to be more favorable than peer nomination ratings and reliable

therefore generally used in most research (Eisenberg & Mussen, 1989; Greener, 2000).

Questionnaire measures of prosocial responding consist of a series of questions regarding

the individuals' own performance of prosocial acts, or the frequency of enacting a variety

of prosocial behaviors. They are imperfect indices of prosocial responding because

people may try to appear more altruistic than they really are (Eisenberg & Mussen, 1989).

Specifically, assumptions are made concerning the rater including that the rater

understands the construct, knows which behavior pertains to the construct, understands

the reference points, and must extract a cumulative impression of behavior (Greener,

2000). Although there are faults, these global assessments align their descriptions with

the definition of prosocial behavior and its different correlates and variations of expressed

behavior. Further, the assessments not only help to examine the likelihood of an

individual to perform altruistic behaviors, but also guide intervention.

Methods of Intervention

Determinants of violence are multifaceted, complex, and even conflicting. They

include individual attributes, familial contexts, and social influences. Not surprisingly,

this complexity has inspired a range of approaches to explain violent behavior, and

various levels of programs to provide intervention, not many of which are empirically

valid or evidence-based. In essence, most programs are stand-alone elements in schools,

most are student-focused, and most are ineffective. The average school has 14

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discretionary prevention programs in place, not including discipline policies and procedures, and these are generally a diverse group of interventions that are not a part of any comprehensive needs-based plan (Kingery & Walker, 2002).

To prevent violent tendencies and enhance prosocial behaviors, early intervention is the key to outward behaviors, specifically prosocial behavior. Successful early intervention cannot be one-dimensional in nature, but must consist of a complex series of interactions and transactions that synergistically serve to nurture and enhance both the development of the child and family (Hester et al., 2003). The most effective interventions are those implemented in multiple environments, by multiple agents over time, with continued intervention, support, and transition services as children move from setting to setting. Further, it is dependent largely on its continuity and consistency across persons, across settings, and over time with interplay between child and child-partner along with variables within the context of the setting that shape the quality of behavior (Hester et al., 2003).

Kerns and Prinz (2002) conducted a comprehensive review of empirically evaluated programs in the United States to prevent youth violence and identified 6 critical and recurring issues that appeared to impose obstacles to the success of the program and that need to be considered when designing such programs. The purpose of the review was to address critical issues concerning target level of programming, theory-driven versus problem-driven conceptualization, cultural considerations, developmental considerations, intervention fidelity, and outcome and impact assessment (Kerns & Prinz, 2002). The keys to effective programs are that they are comprehensive and multifaceted, begin in a primary grade, are developmentally tailored, include content that promotes

personal and social competencies, make use of interactive techniques to facilitate skills development, include culturally sensitive material, ensure intervention fidelity, apply positive control in the classroom, and foster norms against violence in all school activities (Weir, 2005). However, research has yet to discover the best practice in each of these areas, or the ideal combinations of these foundations (Kingery & Walker, 2002).

Specific strategies that have been used to create prosocial responses include awareness of children's developmental levels and abilities, verbalization of children's thoughts and feelings, and belief in the capabilities of young children (Doescher & Sugawara, 1989). McKinley and Carlo (2007) studied 252 college students including 68 males and 184 females who were recruited from a subject pool at a Pacific-coast state university all enrolled in Introductory Psychology courses. A survey packet was administered including the Davis Interpersonal Reactivity Index, the Prosocial Tendencies Measure, the Suppression of Aggression subscale of the Weinberger Adjustment Inventory, and three behavioral fighting items to assess the critical aspects of school interventions in correlation with prosocial and aggressive behaviors.

Programs using methods to teach children how to be aware of other people's feelings have also decreased aggressive behavior in the home and in school (McKinley & Carlo, 2007). More strategies include the use of modeling to facilitate prosocial behaviors, children's responses to encouragement, use of reasoning as a guidance technique, creation of a prosocial environment, and selection of appropriate curriculum activities (Doescher & Sugawara, 1989).

Being aware that children are capable of displaying prosocial behavior in the classroom, childhood educators can be instrumental in creating an environment that

nurtures their prosocial development. When positive social behavior is modeled and encouraged by teachers, children learn to respect others' needs and to respond accordingly. Conclusively, children who behave in prosocial ways also tend to be those who are well accepted by the broader peer group and experience emotional well-being as a result.

School Interventions

School initiatives typically involve an ongoing process of strategic planning and staff development to create building-wide structures and directives for responding consistently to student behavior that can be implemented in a school-wide or classroom-wide basis. Educators can have tremendous influence on students' social growth by creating a school wide culture in which each student has opportunities to see prosocial behaviors modeled by other students and by adults. Literature has proven multiple programs as effective in developing prosocial behaviors although each has their limitations. Most importantly, they all follow underlying foundations of teaching appropriate behaviors for all ages of students.

One of the most prominent programs is Second Step, which is a violence prevention program for children that include a classroom curriculum developed by the National Committee for Children and is approved by the National Safe and Drug-Free Schools Program (Leffler & Snow, 2001). The curriculum is designed to teach children empathy, impulse control, and anger management through fully scripted lessons and interactive activities targeted toward age groups ranging from kindergarten to ninth grade (Leffler & Snow, 2001). The program was evaluated in formative studies and through a 1-year experimental study. In the formative studies, the program was implemented in 12

public and 2 private schools located in urban and suburban districts in the Pacific Northwest. Participating children were given pre-and post interviews and surveys demonstrating significant improvement in their verbal perspective taking and social problem-solving abilities compared to a control classroom (Frey, Hirschstein, & Guzzo, 2000). However, there was a lack of random assignment to groups and therefore the gains could be due to general practices, rather than participation in the Second Step program. A more comprehensive analysis was conducted by Grossman et al. (1997) with third grade students in 49 classrooms from 12 schools in the urban and suburban areas of western portion of the state of Washington. Outcome data including teacher ratings, parent ratings, and direct behavioral observations by trained observers was collected at the beginning of the school year, at the end of the school year, and 6 months after completion of the curriculum (Frey et al., 2000). Behavioral observations revealed that physical aggression decreased and higher levels of positive interaction were maintained when compared to a control group (Grossman et al., 1997). Although there were some significant findings with the examination of the Second Step program, neither the improvements observed in the students nor the problems observed in the control schools were reflected in the ratings of the individual students. Therefore, although a promising program, there are still significant improvements to be made in the evaluation and implementation of interventions targeting prosocial skills.

Another program is Responding in Peaceful and Positive Ways, or RIPP, originally developed for urban middle schools serving a predominantly African American student population. The purpose of RIPP is to reduce the incidence of youth violence by working with the entire student population at a middle or junior high school using a

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valued adult role model to teach knowledge, attitudes, and skills that promote school wide norms for non-violence and positive risk-taking (Farrell, Valois, Meyer, & Tidwell, 2003).

The program was expanded for generalizability with a comparison of outcomes over two years across between four schools that implemented the intervention and four control schools from five rural counties in Florida using a between-schools design. The sample consisted of 685 students at the four control schools and 655 students at the four intervention schools with a mean age of 11.4 years. The participants were evenly divided between boys and girls with 65% Caucasian, 22% Hispanic, and 11% African American. A majority of the students were eligible for federal free or reduced lunch, from homes where English was not the principal language, and children of migrant workers (Farrell et al., 2003). Significant outcomes were found on mediating variables including attitudes toward nonviolence, attitudes toward violence, and knowledge of the intervention material. However, only minor significant differences were found with overall decrease in aggressive behaviors using a pre-test posttest comparison (Farrell et al., 2003). The use of the between-school design was beneficial in examining outcomes with relation to the intervention, however the changes were limited to the most aggressive students and fidelity of the implementation across school could not be determined. Additionally, the statistical power is more strongly influenced by the number of schools than by the number of individuals within school therefore requiring considerable resources.

These programs among many others centering on violence prevention aim to teach certain alternative, prosocial behavioral habits directly so that students have the behavioral competence and skills to be able to engage in prosocial behavior. Further, the

programs facilitate the development of conventional moral reasoning so that children understand why they should engage in prosocial behavior even when other reasons exist for engaging in antisocial behavior if they cannot formulate good reasons for behaving prosocially (Goldstein, Carr, Davidson, & Wehr, 1981). In order for these strategies to be effective, interventions require the child to independently translate abstract principles into concrete actions commonly encountered with peers and others. Specifically, direct links need to be made between child-generated, concrete prosocial behaviors and abstract moral principles in order to strengthen children's understanding of how moral thought impacts their personal world (Greener, 2000). Extensive positive interventions, such as role playing and modeling, can help shape students into adults who are more likely to engage in prosocial behaviors, less likely to engage in antisocial behaviors, more aware of prosocial behaviors, value and respect prosocial behaviors in others, and have a more positive view of people (Cashwell, Skinner, & Smith, 2001).

Prosocial character traits as taught by school professionals are neither abstract principles nor general personality dispositions. Rather, they reflect concrete moral habits or prosocial behavior patterns and regularities in the way people can behave in certain kinds of social situations (Goldstein et al., 1981). Children should be given opportunities to practice such moral values or habits and to learn about their desirability at an early age so that they can develop a foundation of prosocial behavioral skills and attitudes. As seen through a multitude of research, in order for an intervention to be effective in a classroom-wide or school-wide setting, the atmosphere of the school must also be reflective of a safe and comforting environment.

Another aspect of effective programs is the ability to improve school climates. If schools promote the concepts of connectedness and cooperation, prosocial behaviors increase (Barr & Higgins-D'Alessandro, 2007). Further, school-wide coordination is necessary to include structures that promote reinforcement and extension of instruction beyond the classroom and throughout the school (Chesebrough et al., 2004). Specifically, schools should help students feel valued and personally invested in keeping their school safe. This relates to codes of conduct, bullying prevention, conflict resolution, strategies that promote personal responsibility, respect, and compassion, and developing trusting student-adult relationships in which students are encouraged to report potentially dangerous activity (Paine & Cowan, 2009). Peer mediation, conflict resolution, anger management, social skills training, and other techniques can be widely overlapping in their effects, as each takes a slightly different approach to achieve the same end (Kingery & Walker, 2002).

Be a Safety Kid

A specific violence prevention intervention that incorporates the above aspects of a successful prosocial intervention is the Be a Safety Kid curriculum. The goal of the curriculum is to make the school environment a place where a child feels and is safe and secure from the threat of violence (Safety Kids, 1998). The school-wide curriculum is based on the ideals of "Responsible Reporting," or appropriate telling of information when a dangerous situation is apparent (Safety Kids, 1998). These foundations are based partly on the beliefs that most inappropriate behavior leads to punishment. Therefore, students may learn to avoid teacher observation when performing these behaviors. Therefore, in many instances, only peers may observe these behaviors. When these

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behaviors are dangerous, having peers tattle may be the only way to prevent tragedies from occurring (Cashwell et al., 2001).

The Be a Safety Kid curriculum incorporates the crucial aspects of the social learning and cognitive developmental theories in the creation and application of prosocial behaviors. Successful programming includes consistent individual lesson plans or activities in providing clear objectives and activities, as well as a clear rationale for their contribution to the overall program goals (Chesebrough et al., 2004). Be a Safety Kid has objectives, concepts, and activities coordinating with grades Kindergarten through eighth grade with developmentally appropriate skill development and prosocial behavior knowledge. Additional reinforcement is maintained throughout the curriculum and materials are available to infuse the behaviors across subject areas and opportunities for skill application throughout the day. Affective and cognitive prosocial processes are also integrated within the curriculum with a division of skills when reacting to a potentially violent situation. Specifically, children are asked to sense and think corresponding with their developmental level and then act responsibly with the foundational belief that students together are responsible allowing for peers to hold each other accountable for their actions (Safety Kids, 1998). Effective programming also includes rewarding students for using skills in daily interactions, quality of program implementation, and assessment measures to measure individual mastery of objectives (Chesebrough et al., 2004). Be a Safety Kid provides worksheets, role-play activities, and hypothetical scenarios at the conclusion of each lesson in order to test skill knowledge of concepts and maintain prosocial behaviors giving examples of behaviors based in real-life situations.

The Be a Safety Kid curriculum was created in 1998 by Safety Kids, Inc. Safety Kids, Inc. was also founded in 1998 to work hand-in-hand with children, parents, law enforcement personnel, and teachers to protect children from abuse, abduction, exploitation, violence, and injury through victimization. A staff of certified elementary teachers, crime prevention practitioners, and others worked to develop and fine-tune the Be a Safety Kid curriculum to meet the needs of educators, children, and parents.

If educators hope to prevent and remedy social problems, merely suppressing incidental antisocial behavior is not enough. Rather, educators must develop programs that encourage incidental prosocial behaviors within natural school settings (Cashwell et al., 2001). The Be a Safety Kid curriculum expands on these foundations by providing skills and instruction to children on appropriate behaviors and by including school personnel to enhance the belief of students' in their individual prosocial behaviors.

Conclusions

Although research has provided some overarching foundations of prosocial behaviors, there are also some limitations. Most studies have included small samples consisting of primarily middle to upper class Caucasian males. Further there is a lack of a consensus of the specific behavioral manifestations and definitions of the broad construct of prosocial behavior. Few researchers have focused on positive youth development and how to promote prosocial behavior during early adolescence. Researchers are now interested in defining and assessing the underlying social skills that are necessary for prosocial behavior (Barr & Higgins-D'Alessandro, 2007). Previous research has failed to assess the understanding of the functions of prosocial behavior and specifically data on the affective accompaniments of prosocial behavior, and the

developmental changes in the disposition to help, share, comfort, or sympathize (Kokko et al., 2006; Radke-Yarrow et al., 1976). Studies have been limited to laboratory-based research with modest evidence for children, adolescents, and adults (Zeldin et al., 1984). Most research also has taken place in laboratory settings using contrived social situations (Greener, 2000). It is time to examine prosocial behavior from a multilevel perspective that recognizes the diverse influences that promote actions for the benefit of others, considers the variety of ways in which prosocial behavior can be manifested, and explicates both the common and unique processes that underlie prosocial acts across the different levels of analysis (Penner et al., 2005).

This development of skills can be most influential when begun in early childhood so that children are able to comprehensively understand the positive aspects of prosocial interactions and the consequences of helping behaviors. By examining how children interpret and react to social situations, which are critical to how peers perceive them, school professionals, especially school psychologists, may better understand the intersection of the social and cognitive domains in the development of prosocial skills. Therefore, a major challenge for administrators and researchers is finding ways to document positive effects of prosocial skills programs in order to garner the committed, long-term support of teachers and parents.

CHAPTER III

METHOD

This chapter outlines the specific manner in which this study investigated the

research questions discussed in chapter two. This study assessed the quality of the Be a

Safety Kid curriculum in a school population. Specifically, a pre-test/posttest instrument

termed "S.T.A.R." was used to measure the development of skill knowledge and

performance of prosocial behaviors. First, the participants included in the study are

discussed, and how they were recruited. Next, the measures that operationalize each

construct in the research questions are described. Next, the procedures used for

administering measures and collecting the data is outlined, including discussion of the

technical qualities of the data-collection instruments. Finally, the steps of data analysis

that will be utilized are discussed.

Participants

Recruitment of Participants

Because the current study is a secondary analysis of a pre-existing database, the

current study did not recruit participants. However, the series of events undertaken by

the owner of Be a Safety Kid curriculum are outlined. Requests were sent to schools

across the continental United States to receive the Be a Safety Kid program without

change. Schools were also recruited at national conferences where their representatives

inquired about the curriculum at promotional events. When school administrators agreed

to participate, it was explained that each student was given a pre-test before

implementation of the Be a Safety Kid curriculum at the introduction of the school year

and a posttest given at the conclusion of instruction at the end of the school year. Each

school had the option of implementing the program as at school-wide level, grade level, or individual classrooms. Ninety-two requests were sent to schools across the continental United States to receive the Be a Safety Kid program without change. Those who chose not to participate were also asked to complete a survey concerning their decision and reasoning to not participate.

Participant Characteristics

There was a concerted attempt to reach a national sample of youth kindergarten through eighth grade. Districts from rural, urban, and suburban districts were sought. Although students are not randomly assigned to their classrooms, the student representation in terms of gender, ethnicity, and special needs were represented in the heterogeneous classrooms. Of those who chose not to participate, none returned information concerning their reason for lack of participation. Of the anticipated sample, seventh and eighth grade students in a school district northwest of Pittsburgh was the only subjects to respond completing the curriculum and the consequent pretest/posttest measures. There are approximately 85 seventh grade students and 95 eighth grade students for a total of 180 research subjects. The current information was collected during the 2008 to 2009 school year.

<div align="center">

Intervention

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The curriculum of choice used in this study was the Be a Safety Kid curriculum. The goal of the curriculum is to make the school environment a place where a child feels and is safe and secure from the threat of violence. With the implementation of the program, students will learn the skills and behaviors necessary to help prevent violence and harm and improve attitudes that reflect prevention and prosocial approaches (Safety

Kids, 1998). The Be a Safety Kid curriculum was created by Safety Kids, Inc. in 1998 aligning with the foundation of the organization. Safety Kids, Inc. works hand-in-hand with children, parents, law enforcement personnel, and teachers to protect children from abuse, abduction, exploitation, violence, and injury through victimization. Safety Kids, Inc. addresses areas of concern such as bullying, weapon safety, drugs, and other issues. A staff of certified elementary teachers, crime prevention practitioners, and others have worked to develop and fine-tune the curriculum to meet the needs of educators, children, and parents (Safety Kids, 1998).

The school-wide curriculum is based on the ideals of "Responsible Reporting," or appropriate telling of information when a dangerous situation is apparent. A "Responsible Reporter" wants to prevent someone from getting hurt from an unsafe or dangerous situation. If something has already happened, a responsible person reports it so that additional people do not get hurt. Further, a "Responsible Reporter" should not be viewed negatively because individuals who hurt others must be held accountable for their actions (Safety Kids, 1998).

Be a Safety Kid has objectives, concepts, and activities coordinating with grades Kindergarten through eighth grade with developmentally appropriate skill development and prosocial behavior knowledge. Additional reinforcement is maintained throughout the curriculum and materials are available to infuse the behaviors across subject areas and opportunities for skill application throughout the day. Specifically, children are asked to sense and think corresponding with their developmental level and then act responsibly with the foundational belief that students together are responsible allowing for peers to hold each other accountable for their actions (Safety Kids, 1998). Be a Safety Kid

provides worksheets, role-play activities, and hypothetical scenarios at the conclusion of each lesson in order to test skill knowledge of concepts and maintain prosocial behaviors giving examples of behaviors based in real-life situations.

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

Creation of S.T.A.R. Instrument

In the creation of an adequate and comprehensive examination of the fidelity of the Be a Safety Kid curriculum, variables were assessed for their influence in the skill development of children. Specifically, the areas were divided to measure knowledge, performance, and school connectedness. Knowledge testing questions were designed to evaluate the pre-set objectives set forth in the lesson objectives for each grade level. Performance questions were developed to assess the proclivity toward prosocial behaviors and school connectedness questions assessed the safety of the school social environment. Because of the developmental process of children, two different test versions were created to measure similar skills at a developmentally appropriate level. Young children are better able to report subjective information. Concrete descriptions based on physical appearance, behaviors and activities and often present an all or none conceptualization of the world around them (Stone & Lemenek, 1990). Further, young children have a limited awareness of simultaneous experiences and exhibit poor self-presentation ability (Gengue & Xiaopan, 2006). When developing the Be a Safety Kid pre and posttests, the developers considered developmental stage and decided, based on research, to administer only subjective, skill based questions for kindergarten through third grade. Pre-tests and posttests from fourth through eighth grade included self-

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reflection, performance, and school connectedness questions, which can better be answered by children in this age group.

A younger version was developed for children in grades Kindergarten through third grade because of the developmental gap in abilities between third and fourth grade in the school environment and in the Be a Safety Kid curriculum. The kindergarten through third grade version focused on attainment of knowledge strictly aligned with the curriculum and the performance of these skills in the educational environment. Some research has advocated having test questions read aloud for elementary aged students (Reynolds & Richmond, 1978; Stone & Lemenek, 1990). This practice ensures that the test is measuring what the test is intended to measure and not the child's reading ability. When developing the Be a Safety Kid pre and posttests, educators are instructed to administer the test orally to class groups from kindergarten to third grade. The older version was designated for fourth through eighth grade and focused not only skill acquisition and performance but also on the production on these skills on a regular basis. Both sections were also analyzed for the overall safety of the school setting and the ability to bond with the educational structure and with school personnel.

A commonly utilized method of educational and psychosocial measurement is the Likert scale. Likert scales are reported to be easy to use and understand for both the researcher and the student. Test instructions are straightforward to explain to students and instruction time is minimal for the person administering the test (Guyatt, Townsend, Berman & Keller, 1987; Jaeschke, Singer & Guyatt, 1999; Vickers, 1999). Developmentally, a child's ability to understand and respond appropriately to self-report inventories is limited due to less developed reading, writing and language skills.

Therefore, a Likert scale was chosen to best measure the skill and understanding of the curriculum. The Likert scale format has been found to be easier for young children to understand and answer with accuracy when compared to other assessment formats (Shields, Cohen, Harbeck-Weber, Powers, & Smith, 2003). Literature has shown, however, that the Likert scale can be misleading. Too many response categories may lead to difficulties in choosing and too few may not provide enough choice or sensitivity, forcing the respondent to choose an answer that does not represent the person's true intent (McCormack, Horne, & Sheather, 1988; Vickers, 1999).

The Likert scale construction process tends to eliminate the selection of neutral choices in favor of those that are more extreme. This eliminates the natural tendency of respondents to select a neutral position in favor of a slightly more positive or negative rating (Roberts & Strayer, 1996). For this reason, the development of the Be a Safety Kid pre and posttest selected to use a gradient scale ranging from Always, Often, Sometimes, and Never, eliminating a neutral option. Further to maintain a developmentally appropriate level for the test for the younger grades, the Likert scale was further delineated by only two options of yes or no. These two selections were used because of the amount of knowledge and the brevity of choosing between two choices. Children in younger grades may be unable to differentiate between the intricacies of a four option Likert scale seeing similarity between always and often and between sometimes and never. Therefore, two options provided significant discrepancy between the two choices providing more concrete evidence of skill acquisition.

Stone and Lemenek (1990) recommend that age appropriate vocabulary and reading level be used when developing a test using the Likert scale. Because of this,

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during the development of the Be a Safety Kid pre and posttests, each test was screened using a readability formula. The readability level was found using the OKAPI, an Internet application for creating curriculum-based assessment reading probes found through Intervention Central. OKAPI is a web-based application that allows you to enter a text sample and to format that sample as a set of Examiner and Student Curriculum-Based Assessment reading probes. For the use in the pre-test/posttest, the scenarios were entered into the formula and processed for their Spache or Dale-Chall Readability Formula. The Spache Readability Formula is typically used to calculate the difficulty of text that falls at the third grade or below (Spache, 1953). The Dale-Chall Readability Formula is most often used to calculate the difficulty for more advanced test, usually fourth grade and higher (Dale & Chall, 1948). Therefore, we consequently used the Spache formula for the kindergarten through third grade assessment and used the Dale-Chall formula for our fourth grade through eighth grade test. All test levels were found to use language that was age and grade appropriate to the group the test would be administered.

Younger children experience more difficulty maintaining interest on a test for an extended period. Harter and Pike (1984) recommend using a pictorial format using cartoon drawing to generate interest in the task. Further, they suggest that the pictorial format serves to clarify and make the verbal material more concrete. Because of these literature findings, the younger version of the test was categorized using pictorial representations for skill questions. For example, pre and posttest for grades K-3 used both written yes no matched with a thumb up and a thumb down picture.

When developing skill related questions for the Be a Safety Kid, the developer used vocabulary and scenarios directly from the taught curriculum so that the test content and vocabulary are familiar to the student (Stone & Lemenek, 1990). Questions were taken word for word from the curriculum and represented the lessons taught at each grade level. Questions were limited to concrete learned material from the lesson and avoided opinion based inquiries. The knowledge-based questions were developed by an elementary teacher and were reviewed by special education specialists and a school psychologist to ensure face validity.

When developing performance related questions, two areas of emphasis were examined for their implication of the tendencies of children to perform prosocial behaviors on a regular basis. One area was the ability of students to perform helping behavior even when not directly involved in violent or potentially hazardous incident. These types of helping behaviors have been defined in the literature as bystander or prosocial behaviors. The *Merriam-Webster* online dictionary (n.d.) defines a bystander as an individual who is present but does not take part in an event or situation. In the context of school violence, we typically think of bystanders as students who witness fights or other acts of physical aggression. However, these situations are not isolated on physical violence but they can also focus on situations where the bystander may possess information that makes them believe that future violence is likely (Stueve et al., 2006). Furthermore, bystanders are not passive observers. Through both their actions and inactions, they often influence whether and how volatile situations unfold. Consequently, in the development of the pre and posttest, it was crucial to include information on the degree to which students felt comfortable in sharing their role as a bystander and

performing appropriate prosocial behaviors to prevent violence in the school environment.

Darley and Latané (1968) discussed key steps in the process of deciding to be a prosocial bystander, including noticing what is happening and labeling it as a problem where help is needed, taking responsibility, deciding what actions to take, and feeling one has the skills to take action and can do so safely. Another model focuses on how individuals weigh the benefits and costs of different course of action, how they evaluate the normative expectations of others, and how they assess their competence to act (Ajzen, 2002). These models helped to outline the specific areas of questioning pertinent to help assess the tendency of students to report when involved in a violent or potentially violent situation. These beliefs were also an integral aspect in the Be a Safety Kid curriculum aligning with the core concept of the Be a Safety Kid instruction of "Responsible Reporting." The questions focused on prosocial behavior outlined the likelihood of students to appropriately report unsafe situations and also the level of comfort and fear they would feel reporting information.

To incorporate research models, students were asked of the reasons for their willingness to report. These reasons were drawn from research explaining the contextual factors that may halt prosocial behaviors. First, the more ambiguous and less serious a situation, the slower bystanders are to notice warning signs and are less likely to intervene (Latané & Nida, 1981; Shotland & Goodstein, 1984). Also, if multiple bystanders are present, if bystanders misperceive or underestimate the gravity of situation, and the degree of intimacy or relational distance between an aggressor and victim may stop bystander involvement (Stueve et al., 2006). Lastly, socially cohesive

groups of bystanders are more likely to respond to emergency situations than are

strangers, further supporting the need for a normative environment that supports social

responsibility (Horowitz, 1971; Latane & Nida, 1981; Rutkowski, Gruder, & Romer,

1983). These reasons outlined through research guided the presentation of possible

options for lack of prosocial decisions. Also important for the performing of these

behaviors is the role of the wider social context factors in the development of prosocial

behaviors across the lifespan (Carlo & Randall, 2001). A specific contextual factor and

the other area of emphasis was the feeling of bonding and connectedness in the school

environment.

The school connectedness questions were adapted from multiple measures used in

previous literature and research studies. The Unger and Wandersman's (1982) Sense of

Community Scale, which has been used in prior studies with college students is a brief,

three-item measure consisting of the following items: "Do you feel a sense of community

with other people on campus?"; "How important is it to you to feel a sense of community

with people on this campus?"; and "Some people care a lot about the kind of campus they

live on. For others, the campus is not important. How important is what the campus is

like to you?" These questions were modified to better relate to the school environment

using school and school personnel such as teachers and administrators as the primary

focus of the questions. Another scale evaluated and adjusted was a 10-item scale

developed for use in the program evaluation of the Mentors in Violence Prevention

Program (MVP; Katz, 1995). It consists of 10 items assessing self-efficacy related to

gender violence prevention. These questions were assessed toward a more school

violence view focusing on whether students felt they had control over violence in the education setting.

A teacher questionnaire was also created in order to assess the fidelity and utility of the curriculum in the school environment. School connectedness questions were adapted from the student questionnaire and also questions were added about the ease of the curriculum and its benefits and disadvantages in the classroom. Also, assessment techniques were incorporated from a teacher instrument used in evaluating the effectiveness of a bullying prevention program (Edmondson & Hoover, 2008).

Measures

Students who participated in the Be a Safety Kid curriculum were exposed to early violence intervention during an entire school year, in conjunction with the school district's traditional curriculum. For the purpose of this study the teachers and children completed the self-report survey before and after the treatment. The goal was to assess the quality of the Be a Safety Kid curriculum and its ability to effectively decrease violent and potentially violent situations in the school environment.

To coordinate with the theoretical constructs outlined in the creation of the S.T.A.R. instrument, questions in the seventh and eighth grade instruments were divided amongst knowledge, performance of prosocial behaviors, and school connectedness. The instrument was created with a total of 20 questions as to align with the developmental level of the students completing the tests. Questions 1 through 5 were designated as corresponding with developing knowledge. The questions were taken directly from instruction given by the Be a Safety Kid curriculum. These questions will hopefully measure the level at which the seventh and eighth grade students effectively learned and

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acquired basic information given verbally and through activities in the curriculum.

Secondly, questions 6 though 12 were labeled as measuring the ability of the students to

use their knowledge to perform prosocial behavior. The questions hypothetically test the

likelihood of producing these behaviors and the reasoning for becoming actively involved

in a potentially violent situation. The ability of the students to respond to these situations

provides hypothetical examples as to the production of prosocial behaviors. Lastly,

questions 13 through 20 assess the students' belief in the overall safety and

connectedness with their school environment. These questions will not be directly

assessed through this study but are still critical for the overall effectiveness of the

curriculum.

Research Design

This study utilized a pretest posttest quasi- experimental design consisting of a

nonrandomized group. Quasi-experimental design involves selecting groups, upon which

a variable is tested, without any random pre-selection processes. Especially in social

sciences, where pre-selection and randomization of groups is often difficult, they can be

very useful in generating results for general trends (Mertler & Vannatta, 2005).

Procedures

Following the approval of the local district's school board practices, districts were

provided the Be a Safety Kid curriculum by the owner. This curriculum was

administered at the discretion of the school district as a general educational practice.

Participation in any portion of the school curriculum was determined by local school

personnel. Participation was voluntary and districts could withdraw their participation at

any time by simply not completing the forms. Returning the demographic information,

teacher, parent, and de-identified child data was optional. For those that did return

information, consent to compare de-identified data from the school district is assumed.

Introductory material provided by the owner of the Be a Safety Kid curriculum described

the purpose of comparisons should districts volunteer to provide their information to the

owner. All data presented to the owner was in aggregate form so that no parent, teacher,

administrator, or child was identified, therefore no names are included.

Students had sessions once per week integrated into the traditional curriculum

throughout the entire school year. The study was not perceived to have caused physical,

social, legal, economic, or psychological harm to any of its participants. It was

considered no more than minimum risk to students because the study involves normal

educational practices. As with any instruction regarding prosocial behaviors there is an

opportunity to experience feelings of discomfort and there is opportunity for discussion

of controversial or intrusive personal information. To address any potential problems

monitoring typical of all instruction at a school was provided on a regular basis. Supports

were offered if and when necessary over the course of curriculum delivery through the

district's curriculum leader. If any action was warranted the creator of the Safety Kid's

curriculum worked with school personnel to determine appropriate support at the local

level. Further, training was provided for each curriculum administrator. If an unexpected

issue or emergency arises over the course of the curriculum beyond that which could be

addressed through monitoring, the researcher was on-call to provide support. The

benefits of this research outweighed the risk by examining how a safety curriculum may

be useful to the participating school districts and participants. This type of data

collection is consistent with standards of practices aimed at improving the safety and well

being of the participants in and out of the classroom. Approval for this study was granted by Duquesne University's Institutional Review Board (IRB). The principal of the upper elementary school and board of directors approved the study as well.

During the first and last week of the school year, all participants received the pretest/posttest instruments to complete. Four teachers completed the teacher form and designated corresponding anonymous identification numbers to each student to organize the pretest/posttest measure. The instruction of the curriculum took place once per week during the school day for one hour at the upper elementary school. The creator of the Be a Safety Kid curriculum gave all teachers training that were implementing the curriculum.

Data Analysis

All data was collected by the owner of the Be a Safety Kid curriculum. Only de-identified data was provided to the primary researcher. Participants were given an identification number in order to protect their privacy and so that the pre-test and posttest scores can be matched. The results of this study will be given to the board of directors and principal for the participating school district and Duquesne University.

Students were grouped heterogeneously at the beginning of the school year. Given that the classes are heterogeneous, the data for each grade level was analyzed as two groups. Descriptive data is reported in terms of aggregated means and standard deviations. Effect size measures the strength of the effect of any changes detected in knowledge after youth receive the curriculum. Because the study was conducted for the purpose of explaining the effectiveness of the Be a Safety Kid curriculum as measured by the S.T.A.R. pretest/posttest instrument, the research uses the analysis of a repeated

measures ANOVA. The alpha level of .05 was used as a criterion for rejecting or failing to reject the null hypotheses.

Research Questions

This study is driven by several questions related to the effectiveness of the curriculum and relation to prosocial behaviors. The following questions were investigated:

Research Question 1

Is the S.T.A.R. instrument a valid assessment tool for evaluating knowledge, decreasing aggressive behaviors, and performance of prosocial behaviors?

Research question 1 statistical analysis. To assess for validity, the S.T.A.R. instrument was examined as outlined in research question 3 for its effectiveness with a designated population. Secondly, expert opinion was asked from professionals within multiple fields related to the curriculum and instrument for their judgment to establish face validity.   Further, factor analysis was used to determine the stability of content areas across grades.

Research Question 2

Does the Be a Safety Kid curriculum influence knowledge of seventh and eighth grade students in a suburban school as defined as "Responsible Reporting" and the core concepts of the curriculum?

Research Question 2a

Does the Be a Safety Kid curriculum influence knowledge differently for male and female students?

Research question 2 statistical analysis. Repeated measures ANOVA was conducted in order to assess the participants' change from the pretest to the posttest of the self-reported survey. The dependent variable is this study was the Be a Safety Kid curriculum that was integrated throughout the school year. The independent variable was the questions 1 through 5 in the S.T.A.R. instrument that aligns directly with the curriculum instruction. Correlational analyses were run to examine the relationship between gender effects.

Research Question 3

Does the Be a Safety Kid curriculum influence anticipated performance of prosocial behaviors in seventh and eighth grade students?

Research Question 3a

Does the Be a Safety Kid curriculum influence prosocial behavior differently for male and female students?

Research question 3 statistical analysis. Repeated measures ANOVA was conducted in order to assess the participants' change from the pretest to the posttest of the self-reported survey. The dependent variable is this study was the Be a Safety Kid curriculum that was integrated throughout the school year. The independent variable was the designated questions 6 through 12 on the S.T.A.R instrument that aligns with the theoretical concepts for the performance of prosocial behavior. Correlational analyses were run to examine the relationship between gender effects.

CHAPTER IV

RESULTS

The results section is organized as follows. Descriptive statistics present

information concerning all variables in this study, including predictors and dependent

variables. Following the descriptive statistics, statistical assumptions for the statistical

tests are then examined in order to assure the appropriateness of running the main

analyses for each research question. Lastly, the statistical results for each research

question are offered.

Descriptive data are reported in terms of aggregated means and standard

deviations. A repeated measures ANOVA was performed to assess the degree of change

between the pre and posttest groups as measured by the S.T.A.R. instrument. The

S.T.A.R. instrument for seventh grade can be found in Appendix C and for eighth grade

in Appendix D. Effect size was used to determine the strength of the effect of any

changes detected in knowledge after youth received the curriculum. Correlational

analyses were run to examine the relationship between gender effects. Factor analysis

was used to determine the stability and validity of content areas (e.g., knowledge,

performance, and school connectedness) across grades.

Descriptive Statistics

Descriptive statistics describe and summarize data. The descriptive statistics

utilized included means, standard deviations, and internal consistency for each variable in

the study. Participant characteristics were described using frequencies and percentages or

mean and standard deviations as appropriate to the level of measurement. A repeated

measures analysis of variance (ANOVA) was conducted to evaluate the change in self-

reporting before and after the Be a Safety Kid curriculum. The ANOVA method is based

on three assumptions, according to Shannon and Davenport (2001): normality,

independence, and homogeneity of variance. First, each sample is assumed to be drawn

from a normally distributed population. Second, each person's score is assumed

independent of all other scores, and each treatment level is independent of the others.

Finally, the variances from each population are assumed equal. Specifically for repeated

measures ANOVA, there is an additional assumption of the condition of sphericity, or

homogeneity of covariance. Under this condition, it is assumed the levels of the within-

subject variables are equally related to each other. Assumptions were met for research

questions 1 and 2. Assumptions for question 6 were not met therefore results should be

interpreted with caution.

Characteristics of the Sample

One hundred eighty seventh and eighth grade students completed the pre-test and

posttest. Ninety-one of the participants were male (51%) and 89 were female (49%).

Their ages ranged from 12 to 14 years of age, with a mean age of 13.00 years. There

were 95 eighth graders, 53% of total sample, and 85 seventh graders consisting of 47% of

total sample. The participants had parental consent, student assent, regular attendance for

the intervention sessions, and average intelligence in order to be included in the study.

Description of the sample is provided in Table 1.

Table 1

Descriptive Statistics

Sample	Gender	N	Percentage	Mean Age
Grade 7	Male	42	49%	12.5
	Female	43	51%	12.5
	Total	85	47%	12.5
Grade 8	Male	49	52%	13.5
	Female	46	48%	13.5
	Total	95	53%	13.5
Total sample	Male	91	51%	13.0
	Female	89	49%	13.0
	Total	180	100%	13.0

Data Analysis

Research Question 1

The first research question was designed to determine the validity of the S.T.A.R. instrument and its alignment with the constructs designated through its creation. In particular, Questions 1 through 5 would align with knowledge, Questions 6 through 12 would align with anticipated performance of prosocial behaviors, and Questions 13 through 20 would describe school connectedness. Specifically, is the S.T.A.R. instrument a valid assessment tool for evaluating knowledge, gauging performance of prosocial behaviors, and increasing school connectedness? It was hypothesized statistical analysis would designate three factors of the instrument corresponding with the

designated constructs. Descriptive statistics for pre and posttest questions are provided in Appendix A.

To assess for overall validity, construct, face, and criterion validity were examined. For face validity, experts in the fields of school psychology, intervention implementation, and child violence were asked for their expert opinions of the S.T.A.R. instrument during the creation. Multiple school psychologists, police officers, the creator of the Be a Safety Kid curriculum, statistics professors, teachers, principals, and children provided corrections and input concerning details of the instrument and its alignment with theoretical constructs. In order to determine construct validity, confirmatory factor analysis was conducted.

A confirmatory factor analysis was run with rotation to determine the designated factors and their alignment with the proposed constructs. The Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity were conducted to determine the appropriateness of the factor analysis. The KMO statistic varies between 0 and 1. A value of 0 indicates that the sum of partial correlations is large relative to the sum of correlations, indicating diffusion in the pattern of correlations. Hence, factor analysis would likely not be appropriate. A value closer to 1 indicates that patterns of correlations are relatively compact and so factor analysis should yield distinct and reliable factors (Spicer, 2005). Kaiser (1974) recommends accepting values greater than .50 as acceptable, values between .50 and .70 as mediocre, values between .70 and .80 as good, values between .80 and .90 as great, and values above .90 as superb. The KMO statistic in this study was .78, which falls into the acceptable range, making factor analysis appropriate for this study.

Bartlett's measure tests the null hypothesis that the original correlation matrix is an identity matrix. A significance value less than the designated alpha level of .05 indicates that there are relationships between the variables. The Bartlett's test in this investigation concluded a chi-square of 1770.41 with a significance <.001 demonstrating the appropriateness of factor analysis. To determine factors, confirmatory factor analysis was used with the assigned three factors as assigned in the creation of the S.T.A.R. instrument. Kaiser's rule was used, it states that only eigenvalues at least equal to 1.0 are retained (Shannon & Davenport, 2001). Stevens (2002) was used to assess loadings of factors due to small sample size therefore indicating four or more loadings of more than .60 to qualify the legitimacy of factor loadings. Therefore, only factors with loadings of .60 or higher are deemed to be comprehensive and sufficient for analysis.

The three factor model accounted for 40% of total variance. Using the criteria provided by Stevens (2002) with loadings equal to or greater than .60, there were seven loadings on factor 1, zero loadings on factor 2, and one loading on factor 3. To try to examine more loadings and separation between components, lower criteria was employed. The three factors aligned with creation of the S.T.A.R. instrument. Questions 1 through 5 were hypothesized to load together to create knowledge, questions 6 through 12 to create performance, and questions 13 through 20 to create school connectedness. After factor analysis and lower criteria, questions 1, 3, 4, 5, 9, 11, and 12 loaded on factor 1, question 13, 15, 16, 17, 18, 19, and 20 loaded on factor 2, and all options for question 8 and three options for question 7 loaded on factor 3. Questions 2, 6, and 7 loaded similarly across all factors.

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The conclusion of the factor analysis determined there was some overlap with underlying factors coinciding with the theoretical breakdown designated in the creation of the S.T.A.R. instrument. Specifically, the first factor appeared to align with the knowledge questions with a majority of questions 1 through 5 loading significantly on this factor. The second factor indicates alignment with school connectedness due to the majority of questions 13 through 20 loading significantly. The third factor aligns with the construct of anticipated performance although only questions 7 and 8 loaded significantly. This signifies that the performance construct was only identified by questions aligning with previous research including Darley & Latané, 1968, that designated the options chosen as answers to these questions. Interestingly, questions 2, 6, and 7 did not align with any factors demonstrating they may not measure any type of prosocial behavior or may measure all three constructs equally. Through factor analysis, the S.T.A.R. instrument was proven to align with the major constructs of knowledge and school connectedness. In addition, it provides evidence the instrument may not be differentiated enough to separate between theoretical concepts or may be measuring a different type of prosocial thought process or behavior. Results are provided in Appendix B.

Research Question 2

The next hypothesis is, in a group of seventh and eighth graders, there should be statistical significance between their scores in the knowledge construct (Questions 1 through 5) as measured by the S.T.A.R. instrument administered before participating in the Be a Safety Kid curriculum and after completing the curriculum. Specifically, does the Be a Safety Kid curriculum influence knowledge of seventh and eighth grade students

in a suburban school as defined as "Responsible Reporting" and the core concepts of the curriculum? In addition, the comparison between males and females in the sample was examined to determine if there was statistical significance 'Responsible Reporting'. It was hypothesized there would be a significant difference between gender due to the theoretically different demonstrations of prosocial behavior in males and females.

The Levene's test of homogeneity of variance was not significant with $p = .24$ for pre-test and $p = .07$ for posttest groups. The Box's test of equality of covariance matrices tests the null hypothesis. The observed covariance matrices of the dependent variables are equal across groups therefore the assumption is met, $F(3, 5794830) = 2.26$, $p = .08$. In terms of the condition of sphericity, most research analyzes the conclusions of Mauchly's Test of Sphericity. However, because the repeated measures factor in this investigation contains only two levels, then the sphericity assumption is always met. Sphericity is met if all the variances of the differences are equal (Spicer, 2005). Due to these assumptions being maintained, sphericity was assumed.

Multivariate test results indicate no significant difference between the knowledge levels before and after completion of the Be a Safety Kid curriculum, $F(1, 178) = 1.52$, $p = .22$. Therefore, we fail to reject the null hypothesis that there are no differences in pre-test and post-test scores among the students. .

To analyze the second half of the research question examining gender differences, between-group comparisons were conducted to determine whether changes in pre and post scores differed. There were no differences due to gender, $F(1, 178) = 2.10$, $p = .15$. Although there was no statistical significance, there was an increase in means after the implementation of the curriculum. The overall sample mean increased from 1.29 to 1.33

for an increase of .04, with an increase of .05 for males and .04 for females. The increase

does indicate a growth in knowledge development, even though it was not statistically

significant. ANOVA Results are presented in Table 2.

Table 2

Repeated Measures ANOVA for Knowledge Questions

Source	df	F	Significance	Partial Eta Squared	Power
Knowledge	1	1.52	.22	.01	.23
Gender	1	2.10	.15	.01	.30
Knowledge * Gender	1	.02	.88	.00	.05
Total	180				

*$p<.05$.

Research Question 3

The last research question analyzed possible differences in the hypothetical

performance of prosocial behaviors in the sample. Specifically, does the Be a Safety Kid

curriculum influence anticipated performance of prosocial behaviors in seventh and

eighth grade students? In addition, the differences between genders were analyzed for

significance. It was hypothesized that there would be a statistical difference between the

pre-test and posttest groups in the hypothetical performance of prosocial behaviors and

between males and females.

Due to the response to Question #6 being either a Yes or No answer, it was

examined independently from other questions. Assumptions of homogeneity of

intercorrelations and normality were not met. Therefore, results should be interpreted

with caution. Multivariate tests indicate there was no significant difference between pre-

test and posttest anticipated performance of prosocial behavior with $F(1, 178) = .039$, $p = .84$. Between-group comparisons were conducted to determine any significant differences between gender groups. Gender was found to be significant with $F(1, 178) = 4.41$, $p = .04$, $\eta^2 = .02$. Because the conclusion indicates that there was significant difference, this indicates a quantitatively different response for males versus females. According to Green and Salkind (2005), .01 effect size is small, .06 is medium and .14 is large. The multivariate effect size indicates 2% of the variance of the dependent variables is associated with the group factor. To elaborate on this significance, the overall mean for males was 2.96 while the mean for women was 2.85. Therefore, males demonstrated they are statistically more likely to report something unsafe or illegal than females, contrary to previous research findings. Results are provided in Table 3.

Table 3

Repeated Measures ANOVA for Question 6

| Source	df	F	Significance	Partial Eta Squared	Power
Question 6	1	.04	.84	.00	.05
Gender	1	4.41	.04*	.02	.01
Question 6 * Gender	1	.04	.84	.00	.05
Total	180				

*$p<.05$.

Questions 7 and 8 of the S.T.A.R. instrument assessed the qualitative reasons as to why students may not report illegal and unsafe activities or had intervened prosocially. These questions were examined with profile plots, frequencies, and descriptives. Question #7 had four possible responses of: Not at All, Alone, With a Friend, or With a

Group, to the question of "How would you report something unsafe or illegal?" Results were compared of means from the introduction of the curriculum to conclusion. On the posttest, students indicated an increase of .5% for Not at All, decrease in .6% for Alone, increase of 3.9% for With a Friend, and an increase of 4.5% With a Group. The increase of percentage for not reporting unsafe activities is inconsistent with previous findings and the goals of the curriculum. However, the more significant increase in reporting with a friend and with a group is encouraging and indicative of the positive aspects of curriculum instruction. Responses are displayed in Figure 1.

Figure 1

Percentage of Responses Chosen for Question 7
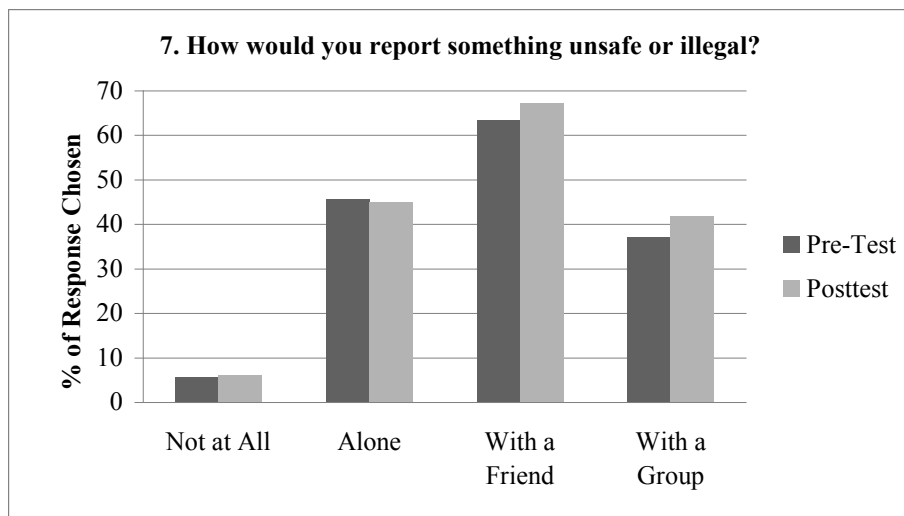
Question 8 asked, "What would keep you from reporting something unsafe or illegal?" Students responded by choosing one or more of the following responses: It's Not My Responsibility, Afraid to Report, Don't Know What I Should Do, Other People Will Report It, It's Not Serious, and None of the Above. Examination indicated students marked an increase of 4.5% for It's Not My Responsibility, increase of 3.3% for Afraid to Report, decrease in 3.9% for Don't Know What I Should Do, increase of 8.9% for

Other People Will Report It, decrease of 1.1% for It's Not Serious, and decrease of 1.1% for None of the Above.

These results are somewhat inconsistent with previous literature but provide direction for further study and analysis. In particular, students did not demonstrate significant response differences in either question after instruction. Further, the conclusion that students continue to assess dangerous situations as being not their responsibility or that they are in fear is cause for caution and is not consistent with the hypothesis. Positively, after the curriculum, students were more knowledgeable about steps to take in an unsafe or illegal situation, demonstrating a decrease in being unaware of what actions to take. Results are provided in Figure 2.

Figure 2

Percentage of Responses Chosen for Question 8
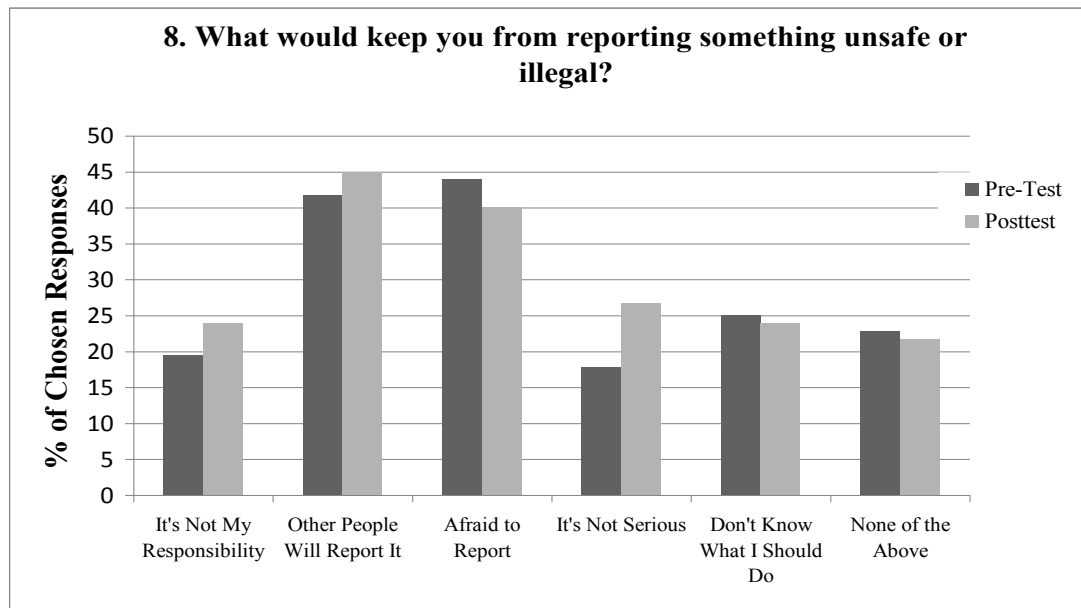
Questions 9 through 12 were examined through repeated measures ANOVA. Multivariate tests of within-subjects effects indicate no significance between groups with $F(1, 178) = .15, p = .70$. Comparisons were used to analyze the second portion of the

research question about differences in gender. Results are indicated in Table 4. The results of these analyses indicate an acceptance of the null hypothesis with no significant differences between genders or the pre-test and posttest groups. These results do not align with previous literature findings and do not support the efficacy of the Be a Safety Kid curriculum increasing the anticipated prosocial behavior of students.

Table 4

Repeated Measures ANOVA for Performance Questions

Source	df	F	Significance	Partial Eta Squared	Power
Performance	1	.15	.70	.00	.07
Gender	1	.65	.42	.00	.13
Performance * Gender	1	.01	.94	.00	.05
Total	180				

*$p<.05$.

Summary

Results from the first research question analyzing the validity of the S.T.A.R. instrument indicate there are two distinct constructs that were measured. Specifically, the concepts of knowledge and school connectedness aligned with the appropriate questions. However, there were still multiple questions with inconsistent loadings, indicating multiple imperfections in the instrument. In particular, those questions hypothesized to be indicative of performance loaded on multiple factors equally or not at all. Further, questions 7 and 8, which asked for reasoning behind prosocial behaviors, loaded together indicating a cohesive of construct.

For the second and third research questions, statistical analysis did not support the research hypotheses of the improvement of knowledge and anticipated performance of prosocial behaviors of seventh and eighth grade students as measured by the S.T.A.R. instrument. Subjects demonstrated a previous set of skills of knowledge questions and did not exhibit increased attainment of curriculum concepts or prosocial behaviors. In terms of anticipated performance, there was not a statistical significance between pre and posttest measurement, as assessed through repeated measures ANOVA. Although, for both designated constructs there was an increase in means demonstrating increase in attainment of knowledge, even though it was not statistically significant. There were also consistent increases in means for questions 7 and 8, which analyzed the thought processes and decision-making of prosocial behaviors. Subjects indicated an increase in reporting unsafe activities with a friend or group. Concerning results include the decrease in awareness that an unsafe situation is not serious and that it is someone else's responsibility.

Gender was not a significant variable between groups for all analyses except for question 6. However, these results should be interpreted with caution due to the small sample size and the failure of question 6 to meet the assumption requirements for analysis. The results indicated that males would be more willing to report unsafe or illegal activity than females. The conclusions of the research analysis elaborate on a need to modify and correct the conceptual features of the S.T.A.R. instrument to more properly align with theoretical constructs. Further, it rejects all hypotheses, signifying no statistically significant impact of the Be a Safety Kid curriculum on the dependent variables of knowledge and anticipated performance with a sample of seventh and eighth

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grade students. In addition, there was no statistically significant relationship between the

group gender variables.

CHAPTER 5

DISCUSSION

Chapter 5 discusses the implications of the analyses presented in chapter 4. In this chapter, results are interpreted in light of the research questions and discussed in conjunction with the literature review. Limitations of interpretation and implications for further research are also provided.

Summary

Prosocial behavior refers to individuals' tendency to undertake voluntary actions aimed at benefiting others, such as sharing, donating, caring, comforting, and helping (Eisenberg et al., 1999; Findlay, Girardi, & Coplan, 2006; Hay, 1994; Kidron & Fleischmann, 2006). Individuals who are the targets of prosocial actions clearly benefit from being taken care of and helped by others (Eisenberg, Pasternack, Cameron, & Tryon, 1984; Eisenberg-Berg & Hand, 1979; McKinley & Carlo, 2007). On the other hand, behaving prosocially, while carrying social approval, can in and of itself be self-rewarding and have beneficial effects (Blair, Denham, Kochanoff, & Whipple, 2004; Eisenberg & Mussen, 1989; Jackson & Tisak, 2001; Wentzel & McNamara, 1999). Prosocial behavior is positively correlated with psychosocial adjustment in children and adolescents. Prosocial behavior may represent a protective factor that fosters self-enhancement, self-acceptance, and successful psychosocial adaptation, as it promotes one's own integration in the community, positive mood, staying healthy, and life satisfaction (Carlo & Randall, 2002; Eisenberg et al., 2002; Hay & Pawlby, 2003). Prosocial behavior has a clear importance through the lifespan in promoting mutual acceptance and support and then in keeping positive relations among people.

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Research Findings

This study proposed to discover if the Be a Safety Kid curriculum can correlate with the prosocial behavior and knowledge of seventh and eighth grade students as measured through the S.T.A.R. instrument. The first research question assessed the validity of the S.T.A.R. instrument to assess the constructs designated in the creation of the instrument. Results indicated that the instrument is valid overall in assessing the retention of knowledge and anticipated performance as measured through face validity. In particular, the instrument aligned significantly with the constructs of knowledge and school connectedness. However, only questions 7 and 8 aligned with the construct of anticipated performance, designed from previous research of decision making of prosocial behavior (Darley & Latané, 1968). Overall, the S.T.A.R. was shown to be a valid measure of constructs for a majority of the questions created through theoretical and empirical analysis. Results also provide areas for continued improvement, including a more differentiated breakdown of the behavioral expression of anticipated performance and additional measures of skill knowledge.

The results indicated a lack of significance of constructs on the S.T.A.R. instrument. This may be due to the inappropriate constructs examined in the instrument with its failure to load on designated constructs. The lack of cohesive constructs has been displayed in previous research such as Carlo and Randall (2001); Eisenberg et al. (1999); Findlay et al. (2006); Hay (1994); Hay and Cook (2007); Jackson and Tisak (2001); Kidron and Fleischman (2006); Penner, Dovidio, Piliavin, and Schroeder (2005); and Radke-Yarrow and Zahn-Waxler (1986), and with lack of a consensus on the exact definition of prosocial behavior. Therefore, the findings of this pilot study align with the

conclusions of previous researchers that more research needs to be conducted concerning the intricacies and cognitive aspects of prosocial behavior.

The second research question examined the attainment of knowledge from the pre-test measure to the posttest measure. The prosocial literature identifies skill knowledge as an important aspect of engagement in behavior. Children who report higher levels of perceived comfort and efficacy in their knowledge of prosocial skills are both more willing to engage in prosocial behaviors and to engage in a greater numbers of actual behaviors, whether measured cross-sectionally or over time (Banyard, 2008; Barr & Higgins-D'Alessandro, 2007). Additionally, the children were more likely to act if they knew what to do and felt that they possessed the necessary resources (Kidron & Fleischman, 2006; Stueve et al., 2006). Repeated measures ANOVA results concluded there was no statistically significant difference knowledge attainment from the pre-test to posttest measure. Further there was no significant difference between gender groups. Although there was a lack of statistical significance, there was an increase in the means of student responses indicating some improvement in the sample in overall knowledge gains. These findings were inconsistent with previous literature and expected hypothesized results. Specifically, the means remained relatively stable across groups, indicating the sample may have already held the knowledge base of prosocial awareness and therefore did not demonstrate the hypothesized improvements.

The third research question discussed the anticipated performance of prosocial behaviors as measured by statistical differences in the pre and posttest administration of the S.T.A.R. instrument. Results were similar to the previous research questions where

there were no significant differences in pre-post groups or between genders. These findings are also inconsistent with previous literature and hypothesized results.

However, there is some consistency of these findings with research conducted by Midlarsky and Hannah (1985) and Malti, Gummerum, and Buchmann (2007), indicating an increase in prosocial behavior from kindergarten through a peak in middle elementary school years, followed by a decline to its lowest point in early adolescence, and then a rise again in early adulthood. The age group of 12 to 14 years old may align with the group of early adolescence demonstrating the existence of a low point in anticipated prosocial behavior. The specific examination of bullying behavior in middle school settings is important because problems of aggression and interpersonal violence tend to increase in severity during early adolescence, a period of multiple physical and social changes (Parault, Davis, & Pellegrini, 2007). These conclusions may be attributed to children's increasing awareness of the social cues governing prosocial behavior, children's increasing capacity to regulate their emotions to the distress of others and to find alternative ways of responding besides distress, and children's greater ability to pursue self-interests, which diminishes the need for cooperation and generosity with others at all times (Hay, 1994). Therefore, although the curriculum did not demonstrate significant increases in knowledge gains, this may be due to the developmental level of the sample and its influence on the expression of these prosocial behaviors. Further, due to the developmental categorization of the sample group, between 12 and 14 years old, the curriculum may have served as a reinforcement of previously learned skills contributing to the lack of significant gains.

Students reported both before and after receiving curriculum instruction that they would report something that appeared unsafe or illegal. However, there was still a mild level of hesitation by students to report and their reasons for not reporting these situations. Specifically, although there was not a significant difference between testing groups, students still chose a reason for reporting instead of choosing the alternative of none of the choices being an accurate representation of their problem-solving. Aligning with previous research findings (Darley & Latané, 1968), students did choose one or more of the designated options of why they would not report. Most concerning was a continued fear of reporting or diffusion of responsibility even after curriculum instruction. In particular, more overall students than not responded there would be possible retaliation for talking to school authorities and a reliance upon others to report the possibly harmful and illegal acts. Future studies and especially intervention techniques should examine how to pinpoint these issues and increase self-confidence in reporting.

Results demonstrated an increase in knowledge, although insignificant and the lack of differentiation between genders, as additive to the literature base. Specifically, the conclusions provide evidence of a disagreement with previous literature that males and females exhibit prosocial behavior differently. There was no statistical significance for gender groups throughout the S.T.A.R. instrument, except in question 6. This question should be interpreted with caution due to lack of requirements met for the statistical assumptions. However, there was indication from this question that males were more willing to report an unsafe or illegal situation than females. These results are inconsistent from previous research. Prosocial behaviors are observed in both girls and

boys, although some research has shown a greater expression of prosocial behaviors in females (Doescher & Sugawara, 1989; Zeldin, Savin-Williams, & Small, 1984). Specifically, females tend to engage in more prosocial behaviors, show more perspective taking and be more empathic, sympathetic, and nurturing than males, whereas males have been found to be more physically aggressive and engage in more risky and instrumental forms of prosocial behaviors (Eisenberg & Mussen, 1989; Scourfield, John, Martin, & McGuffin, 2004). However, there is some research that is inconsistent with previous findings aligning more with a consolidation of traits.

Some researchers have found the gender differences in prosocial and aggressive behaviors that are exhibited differently in childhood begin to consolidate and emerge by adolescence into more similar patterns (Bar-Tal, 1976; McKinley & Carlo, 2007). The age group of this sample demonstrates the beginning of the convergence toward a similar mean for gender groups. This study proves that males and females retain knowledge on prosocial concepts in a similar manner and would react similarly in potentially unsafe or illegal situations. Further examination is needed to determine more innate similarities or differences.

Limitations

School-based anti-bullying and prosocial efforts often involve universal programs administered to the entire school population, typically with the goal of increasing awareness of positive appropriate behaviors and decreasing detrimental behaviors among students (Swearer, Espelage, Vailancourt, & Hymel, 2010). Although some research has demonstrated significant and positive outcomes for school-based intervention and prevention efforts, not all efforts have met with consistent success. These mixed results

suggest that although school-based and school-wide bullying prevention efforts can be effective, success in one school or context is no guarantee of success in another. Researchers are only beginning to understand the factors that contribute to this variation in outcomes across schools and across countries. Specifically, there is no single, large-scale randomized clinical trial of a school-wide bullying prevention program (Swearer et al., 2010).

In addition, the Be a Safety Kid curriculum was not created in alignment with standard practices in evidence-based curricula. Specifically, Horner, Sugai, and Anderson (2010) defined 6 criteria to determine educational practice, or a set of procedures for use in a specific context to achieve defined outcomes of a population. These criteria include operational definitions of the practice, the settings, the qualifications of people who may use the practice, the target population, the outcomes, and the conceptual theory and basic mechanisms framing (Horner, Sugai, & Anderson, 2010). The Be a Safety Kid curriculum was created in accordance with some of these overarching concepts, specifically defining the definitions of practices, qualifications of people who may use the practice, and perceived outcomes. The creators of the curriculum illustrated the specific elements of the practice that can be observed and counted defining "Responsible Reporting" as pertinent to the curriculum. Also, the qualifications of individuals using the practice was outlined to only include school professionals and staff to appropriately convey the procedures of the curriculum after appropriate training. Lastly, the measurable outcomes expected were described through an increase in skill knowledge and hypothetical prosocial behavior. However, there was a lack of conceptual theory underlying the curriculum providing a framework for assessing why the curriculum

works. Further, the population and setting were not clearly defined for effectiveness concerning when and where the curriculum would be most effective. Therefore, the limitations inherent in this study should be interpreted within the context of bullying and prosocial behavior research of a lack of clear consensus of program requirements and significant results.

In this study, it was a challenge to establish internal validity due to the lack of randomization because of the use of pre-existing, intact groups. There were also significant issues concerning the fidelity of the instrument. Teachers were given clear directions by the creator of the Safety Kids curriculum concerning instruction and completion of instruments to align with the measurement schedule. However, the fidelity of curriculum implementation was not measured and as such it was not clear how closely the teachers aligned with training and written directions. Due to the lack of direct experimenter involvement and involvement from the creator of Safety Kids only two times during the school year, it is possible that the implementation of the curriculum or the S.T.A.R. instrument was inconsistent.

External validity was also limited due to the nature and size of the sample. In particular, results were obtained from a small nonrandomized homogeneous sample size therefore the study results would be difficult to generalize to more diverse and heterogeneous populations. However, this sample was still able to provide information to establish underlying foundational necessities of the curriculum so it can be continued and improved upon to a larger, more diverse sample. This study is meant to serve as a pilot study evaluating the curriculum and pre-test/posttest measure with the intended population.

Further, the lack of significance may be due in part to difficulties assessing prosocial behaviors in large scale curriculum analyses. Intervention and prevention efforts that seek to raise awareness regarding bullying can initially increase student reports of bullying, making evaluation of changes in rates of bullying difficult in short-term longitudinal evaluations (Swearer et al., 2010). Second, one's interpretation of bullying and prosocial behavior varies across cultures, language groups, and individual characteristics like age and gender.

These results may be due in part from the self-reporting of the students and the hypothetical nature of the questions. Questionnaire measures of prosocial responding consist of a series of questions regarding the individuals' own performance of prosocial acts, or the frequency of enacting a variety of prosocial behaviors. They are imperfect indices of prosocial responding because people may try to appear more altruistic than they really are (Eisenberg & Mussen, 1989). Specifically, assumptions are made concerning the rater including that the rater understands the construct, knows which behavior pertains to the construct, understands the reference points, and must extract a cumulative impression of behavior (Greener, 2000). In addition, the questions were directly related to hypothetical or anticipated situations and may not be directly related to real-life scenarios. Also, this narrow approach increases measurement error in that extreme biases are not attenuated as they would be if other evidence was considered (Swearer et al., 2010).

Most studies have included small samples consisting of primarily middle to upper class Caucasian males limited to laboratory-based research with modest evidence for children, adolescents, and adults (Zeldin et al., 1984). This study included males and

females in a school setting hypothesizing everyday scenarios to determine critical reactions that may not be assessed in laboratory settings. Further, there is a lack of a consensus of the specific behavioral manifestations and definitions of the broad construct of prosocial behavior. This limitation was supported by the inconsistent factor loadings and clear definitions of prosocial behaviors. Although there were limitations that may have affected the lack of significant findings, these results provide impetus for future areas of research. Research is needed to determine whether self-report measures are sufficiently sensitive to detect changes in bullying over time, especially given that school-based intervention efforts do not demonstrate consistent success.

Recommendations for Future Research

Future research should expand on the conclusions presented by scientists thus far to include a more diverse and representative sample. There should also be an emphasis on the reasons children use prosocial behavior and in which external contexts these behaviors are most exhibited. Lastly, these reasons should help to correspond with assessment and intervention to create a more comprehensive concept of prosocial behaviors and methods to increase and improve these behaviors in the school environment.

This development of skills can be most influential when begun in early childhood so that children are able to comprehensively understand the positive aspects of prosocial interactions and the consequences of helping behaviors. By examining how children interpret and react to social situations, which are critical to how peers perceive them, school professionals, especially school psychologists, may better understand the intersection of the social and cognitive domains in the development of prosocial skills.

Therefore, a major challenge for administrators and researchers is finding ways to document positive effects of prosocial skills programs in order to garner the committed, long-term support of teachers and parents.

In addition, in order to most accurately describe the Be a Safety Kid curriculum as evidence-based, there should be continued sufficient evidence to allow unequicoval documentation that the practice is effective. Guidelines for assessing and outlining future research include the number of studies documenting an experimental effect, methodological quality of those studies, replication of findings, size of documented effect, and durability and generalizability of the observed effect (Horner, Sugai, & Anderson, 2010).

Before selecting a specific intervention, educators should investigate whether or not the intervention is based in research, if it promotes prosocial behavior, and if there are documented outcome data. The research that has been conducted on bullying prevention and intervention suggests that anti-bullying initiative should include individual, peer, family, school, and community efforts. Finally it is important to consider school bullying as part of a larger focus within schools on social and emotional development and learning (Swearer et al., 2010).

Conclusions

In recent decades, American students witnessed numerous school shootings that were depicted in great detail by the media. This raised questions about the safety of students enrolled in our public schools. Further, continuing tragedies in the school environment shock the nation and raise doubts about safety throughout our community and society at large. Therefore, it is of continued importance to identify the potential

behaviors and moral reasoning that leads to these dangerous situations. At the forefront of media analysis is the examination of aggressive behaviors in school age children and its implications for school safety. Specifically, children who engage in aggression early in life are likely to continue their aggressive behavior throughout the life course (Hester, Baltodano, Gable, & Tonelson, 2003). Early aggressive behavior is strongly associated with later criminal behavior and deviant peer relations, poor school achievement, school dropout, unemployment. Further, children who are exposed to aggression at school are at risk for behavioral problems, mood disorders, peer rejection, and criminal behavior (Haemaelaeinen & Pulkinnen, 1996; Hay & Pawlby, 2003; Scourfield et al., 2004). Although the continued investigation of these tendencies is critical, it is also pertinent to assess the behaviors that can mediate or halt this violence from occurring. A new implication in research attempting to resolve these issues is the instruction and intervention of prosocial behavior.

From the prevention and intervention points of view, it might be more effective to instruct adolescents in what they ought to do instead of only telling them what it is wrong to do. It has been shown that low peer acceptance often reflects an adolescents' ignorance of behavioral alternatives (Pakaslahti, Karjalainen, & Keltikangas-Jarvinen, 2002). Prosocial behavior, such as empathy, helping, and cooperation, are associated with a high level of social acceptance and vice versa (Kokko, Tremblay, Lacourse, Nagin, & Vitaro, 2006). Prosocial behavior is also related to social popularity among early adolescents (Fabes, Carlo, Kupanoff, & Laible, 1999). Although a clear theory is lacking, prosocial development and behavior have often been explained in terms of emotional processes, such as empathy and sympathy, and sociocognitive skills, such as

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perspective taking and moral reasoning. Sociocognitive information processing approach, specifically through works by Darley and Latané (1968) and Piliavin and Piliavin (1972) and the early research of Piaget (1932) and Kohlberg (1984) with moral reasoning have suggested that human behavior is guided by social problem solving strategies which comprise several information processing steps. People are assumed to collect and interpret contextual information, to select a behavioral goal, to generate and evaluate different response alternative, and then to act out the most positively assessed behavioral strategy.

Everyone has a role to play in ending violence. Identifying the particular moral deficiencies of aggressive children and comparing these to the moral resiliencies of prosocial children may thus be of tremendous help in deepening our understanding of individual differences in children's social adaptation. More studies are needed to assess the effectiveness of approaches demonstrating the applicability of the different programs to students from different ethnic, cultural, and socioeconomic backgrounds. It is time to examine prosocial behavior from a multilevel perspective that recognizes the diverse influences that promote actions for the benefit of others, considers the variety of ways in which prosocial behavior can be manifested, and explicates both the common and unique processes that underlie prosocial acts across the different levels of analysis.

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Appendix A

Descriptive Statistics for S.T.A.R. Instrument.

Question	Pre-test Mean	Posttest Mean	Pre-Test SD	Posttest SD
1	1.74	1.67	1.19	1.22
2	.61	.74	.81	.87
3	1.43	1.48	1.24	1.27
4	1.50	1.51	1.23	1.18
5	1.34	1.33	1.15	1.14
6	2.91	2.90	.33	.32
7a	.06	.06	.23	.24
7b	.46	.45	.50	.50
7c	.63	.67	.48	.47
7d	.37	.42	.49	.49
8a	.19	.24	.40	.43
8b	.42	.45	.49	.50
8c	.44	.40	.50	.49
8d	.18	.27	.38	.44
8e	.25	.24	.43	.43
8f	.23	.22	.42	.41
9	1.99	1.98	1.17	1.22
10	1.74	1.72	.77	.82
11	1.51	1.68	1.21	1.05
12	1.92	1.79	.99	1.01

Question	Pre-test Mean	Posttest Mean	Pre-Test SD	Posttest SD
1	1.74	1.67	1.19	1.22
2	.61	.74	.81	.87
3	1.43	1.48	1.24	1.27
4	1.50	1.51	1.23	1.18
13	2.37	2.30	.75	1.17
14	2.32	2.33	.95	.97
15	2.37	2.28	.80	.83
16	1.56	1.48	.89	.91
17	1.38	1.42	.66	.76
18	2.20	2.15	.84	.89
19	1.86	1.79	1.07	1.05
20	1.42	1.81	1.37	1.02

Note. N = 180.

Confirmatory Factor Analysis Component Matrix

Question	Component		
	1	2	3
1. Knowledge-based seventh: You use your senses when answering Who? What? Where? When? And Why? Questions about this situation. eighth: You should keep her secret because it has nothing to do with you.	.80*	.25	.-08
2. Knowledge-based seventh: You should report this situation even though it's on the internet, and no one will get physically hurt. eighth: Responsible people observe things going on around them, recognize right from wrong, and take action to stand up for what is right.	-.08	-.24	-.19
3. Knowledge-based seventh: Telling another friend instead of an adult about the website will make the cyber bullying situation better. eighth: It is responsible to report something unsafe, illegal, or wrong to a friend if you both then tell an adult together.	-.82*	.29	.11

4. Knowledge-based	-.77*	.44	.05

seventh: Reporting something unsafe, illegal, or wrong to an adult is snitching on someone.

eighth: A bystander is not responsible if he or she knows of an incident and does nothing about it.

5. Knowledge-based	.77*	-.33	-.11

seventh: A responsible reporter wants attention or wants to get another person in trouble.

eighth: A responsible reporter is the same thing as a snitch.

6. Would you report something unsafe or illegal?	.30	.38	-.31

7. How would you report something unsafe or illegal?

• Not at All	-.13	-.22	.38*
• Alone	.07	.14	-.40*
• With a Friend	.13	.06	.11
• With a Group	.15	-.03	.37*

8. What would keep you from reporting something unsafe or illegal?

• It's Not My Responsibility	-.13	-.25	.54*
• Other People Will Report It	.09	-.16	.39*
• Afraid to Report	.01	-.12	.34*
• It's Not Serious	.08	-.25	.55*
• Don't Know What I Should Do	.05	-.04	.50*
• None of the Above	-.04	.24	-.67*

9. How afraid would you be to report something unsafe or wrong to an adult?	-.76*	.27	.04
10. Do you feel comfortable knowing what to say to an adult?	.19	.24	-.15
11. seventh: Reporting something unsafe or illegal will lead to negative consequences (bad results). eighth: If you need to report something to an adult, you should report it sooner rather than later.	-.71*	.44	.03
12. seventh: A bystander should be responsible and report something unsafe or illegal. eighth: You should report everything to an adult.	.69*	.29	.04
13. Do you feel safe at your school?	.26	.46*	.31
14. Is there an adult at school you trust to talk to when you see or know something bad has happened or is going to happen?	.46*	.43*	.05
15. People at your school care about you.	.38	.53*	.28
16. You can prevent violence in your school.	.27	.64*	.15
17. Students know how to solve conflicts nonviolently.	.08	.55*	.11
18. You can ask another student at your school who seems upset if he or she is OK or needs help.	.15	.52*	-.07

19. Everyone is encouraged to participate in violence prevention programs.	.20	.57*	.21
20. The STAR program is helpful in stopping violence at your school.	.37	.55*	.19

Note. * = significant above .25 critical value

Seventh Grade S.T.A.R. Instrument

Student Name or ID Number_____
Date_____
Pre-test / Post-test (circle one)   **Safety Kids, Inc.**
Male / Female   (circle one)   A Non-Profit Organization

S.T.A.R.   Grade 7

Students circle the best answer.

One morning a boy in school approached your friend David and told him to look at a certain website. You and David went to the site and found a photo of David. The website title was "Welcome to the web site that makes fun of David Smith." Another student had created the website and asked others to join in and post hateful comments about David and his family.

1. You use your senses when answering Who? What? Where? When? and Why? questions about this situation.

Always	Often	Sometimes	Never

2. You should report this situation even though it's on the internet, and no one will get physically hurt.

Always	Often	Sometimes	Never

3. Telling another friend instead of an adult about the website will make the cyber bullying situation better.

Always	Often	Sometimes	Never

4. Reporting something unsafe, illegal, or wrong to an adult is snitching on someone.

Always	Often	Sometimes	Never

5. A responsible reporter wants attention or wants to get another person in trouble.

Always	Often	Sometimes	Never

6. Would you report something unsafe or illegal?

Yes	No

7. How would you report something unsafe or illegal? Circle all that are true.

Not at All	Alone	With a Friend	With a Group

8. What would keep you from reporting something unsafe or illegal?

It's Not My Responsibility	Other People Will Report It
Afraid to Report	It's Not Serious
Don't Know What I Should Do	None Of The Above

9. How afraid would you be to report something unsafe or wrong to an adult?

Not Afraid	Somewhat Afraid	Very Afraid	Extremely Afraid

Student Name or ID Number_____
Date _____
Pre-test / Post-test (circle one)
Male / Female   (circle one)

10. Do you feel comfortable knowing what to say to an adult?

Always	Often	Sometimes	Never

11. Reporting something unsafe or illegal will lead to negative consequences (bad results).

Always	Often	Sometimes	Never

12. A bystander should be responsible and report something unsafe or illegal.

Always	Often	Sometimes	Never

13. Do you feel safe at your school?

Always	Often	Sometimes	Never

14. Is there an adult at school you trust to talk to when you see or know something bad has happened or is going to happen?

Always	Often	Sometimes	Never

15. People at your school care about you.

Always	Often	Sometimes	Never

16. You can prevent violence in your school.

Always	Often	Sometimes	Never

17. Students know how to solve conflicts nonviolently.

Always	Often	Sometimes	Never

18. You can ask another student at your school who seems upset if he or she is OK or needs help.

Always	Often	Sometimes	Never

19. Everyone is encouraged to participate in violence prevention programs.

Always	Often	Sometimes	Never

20. The STAR program is helpful in stopping violence at your school.

Always	Often	Sometimes	Never

PO Box 10682 • Pittsburgh, PA 15235 • 412-241-1234 phone • 412-241-2535 fax
info@safetykids.org • www.safetykids.org

Eighth Grade S.T.A.R. Instrument

Student Name or ID Number_____
Date _____
Pre-test / Post-test (circle one)
Male / Female   (circle one)

Safety Kids, Inc.
A Non-Profit Organization

S.T.A.R.   Grade 8

Students circle the best answer.

One day you bump into your friend in the hallway. As you approach her, you notice she becomes flustered and quickly pushes something into her bag. As she puts on her backpack, a pipe falls out of her bag onto the floor. When you confront your friend, she starts crying and admits she has been smoking marijuana, but swears she quit and begs you not to tell anyone.

1. You should keep her secret because it has nothing to do with you.

| Always | Often | Sometimes | Never |

2. Responsible people observe things going on around them, recognize right from wrong, and take action to stand up for what is right.

| Always | Often | Sometimes | Never |

3. It is responsible to report something unsafe, illegal, or wrong to a friend if you both then tell an adult together.

| Always | Often | Sometimes | Never |

4. A bystander is not responsible if he or she knows of an incident and does nothing about it.

| Always | Often | Sometimes | Never |

5. A responsible reporter is the same thing as a snitch.

| Always | Often | Sometimes | Never |

6. Would you report something unsafe or illegal?

| Yes | No |

7. What would keep you from reporting it?

It's Not My Responsibility	Other People Will Report It
Afraid to Report	It's Not Serious
Don't Know What I Should Do	None of The Above

8. How would you report something unsafe or wrong? Circle all that are true.

| Not At All | Alone | With A Friend | With A Group |

9. How afraid would you be to report an unsafe or wrong situation to an adult?

| Not Afraid | Somewhat Afraid | Very Afraid | Extremely Afraid |

Student Name or ID Number_____

Date_____

Pre-test / Post-test (circle one)

Male / Female   (circle one)

10. Do you feel comfortable knowing what to say to an adult?

Always	Often	Sometimes	Never

11. If you need to report something to an adult, you should report it sooner rather than later.

Always	Often	Sometimes	Never

12. You should report everything to an adult.

Always	Often	Sometimes	Never

13. Do you feel safe at your school?

Always	Often	Sometimes	Never

14. Is there an adult at school you trust to talk to when you know something bad has happened or is going to happen?

Always	Often	Sometimes	Never

15. People at your school care about you.

Always	Often	Sometimes	Never

16. You can prevent violence in your school.

Always	Often	Sometimes	Never

17. Students know how to solve conflicts nonviolently.

Always	Often	Sometimes	Never

18. You can ask another student at your school who seems upset if he or she is OK or needs help.

Always	Often	Sometimes	Never

19. Everyone is encouraged to participate in violence prevention programs.

Always	Often	Sometimes	Never

20. The STAR program is helpful in stopping violence at your school.

Always	Often	Sometimes	Never

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