

EXAMINATION OF HEAD START CHILDREN'S SOCIAL COMPETENCE AND
SOCIAL COGNITIONS AFTER PARTICIPATING IN A UNIVERSAL VIOLENCE
PREVENTION PROGRAM

By

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To Paul

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Young children's aggressive behaviors have been the focus of considerable research in the last several decades. Based on this research evidence suggests that childhood aggression predicts later high-risk behaviors including delinquency, dropout, and maladjustment. Research also suggests that prevention efforts, early in life, are successful in decreasing the likelihood of aggression by promoting constructive behavioral alternatives to aggression. This is based on the premise that young people at risk for behavioral problems often lack the foundational social and emotional competencies that are necessary for school success.

The purpose of this study was to examine Head Start children's social competence and social cognitions before and after participating in the Second Step Violence Prevention Curriculum. This curriculum emphasized the acquisition of social and emotional skills in preschoolers as well as to decrease

behaviors that may lead to aggression later in life. Sixty-four Head Start children from 5 classrooms in Alachua County participated in this study. In particular, this study examined the degree of association among children's characteristics including gender, age, ethnicity, language ability, pretest measures of social competence and social cognitions, and intervention outcomes including posttest measures of social competence and social cognitions, while controlling for socioeconomic status. In addition, this study examined the degree of association between teachers' characteristics, including age, years of education, years of experience, years in current position, and treatment fidelity, and intervention outcomes, including children's posttest measures of social competence and social cognitions, while controlling for socioeconomic status.

Results suggest that (1) of all the children's characteristics examined during the study, children's social competence (i.e., their pretest scores on the Social Skills Rating System) and overall development (i.e., children's pretest scores on the Early Screening Inventory, Revised) predicted children's social competence following implementation; (2) children's initial measures of social cognitions (i.e., or their pretest scores on the Early Childhood Social Cognitions Interview) and language ability (scores on the Preschool Language Scales, 4th Edition) predicted an increase in their social cognitions after participating in the program; and (3) teachers' characteristics were significant in the identification of group differences in children's social competence following implementation.

CHAPTER 1 INTRODUCTION AND LITERATURE REVIEW

The Problem

Early childhood teachers routinely face challenging behaviors in young children across the United States. These behaviors include but are not limited to physical aggression towards peers and adults, as well as inappropriate sexual behaviors that were not generally seen in the past (Walker, 1998). This is of particular importance considering that during the last few decades a number of researchers have suggested that young children's behavior patterns, especially those displayed in the presence of others, are among the best predictors of future social adjustment outcomes (e.g., Miller & Eisenberg, 1988; Rubin, Bream, & Rose-Krasnor, 1997; Yoshikawa, 1995). Of these early behavioral patterns children's aggression, withdrawn behavior, and prosocial behaviors with their peers have been empirically researched and the focus of various early prevention and intervention programs (Ladd & Profilet, 1996).

Early prevention and intervention require an early and ongoing investment in children, schools, and families (Simeonsson, 1991) that provides the required aid these individuals and institutions need at various points in their lives. For instance, schools can become positive agents of change considering that "entry into preschool or school settings provides one of the first opportunities to access or get at the social-behavioral problems of students, some of whom will be severely at risk" (Walker, 1998, p. 17). Further, as Reid (1993) emphasizes, early

interventions that are consistent in targeting those influential social agents closest to the child (e.g., parents, peers, and teachers) are likely to impact the child by diverting him or her from a destructive path conducive to negative outcomes in life.

A successful strategy used in schools with children exhibiting aggressive behavior is to teach social skills that target deficits and contribute to children's adjustment problems. Social skills deficits have been recognized as playing an important role in the developmental path of aggression and antisocial behavior (Patterson, Capaldi, & Bank, 1991). Aggressive children have been shown to exhibit deficits in at least three areas. First, they demonstrate deficits in interpersonal behavior and high rates of aggression that results in poor peer approval. Secondly, researchers have identified a pattern of deficits in social problem solving (Elias, Gara, Ubriaco, Rothbaum, Clabby, & Schuyler, 1986) including attributing hostile intent in others as well as their inability in generating a range of responses to hypothetical conflictive situations relative to their non-aggressive counterparts. Finally, these children often demonstrate low self-esteem, loneliness, and depression, which lead them to expect failure in their relationships with others (Asher, Hymel, & Renshaw, 1984). Most of the research in this area has been conducted with elementary aged children.

Taken together, these deficits require early intervention and prevention to divert children from detrimental outcomes. Mental health professionals emphasize the need to begin developing prosocial skills during the early preschool years because aggression in early childhood, when not remedied, is

strongly related to later acts of aggression and/or violence (Yoshikawa, 1995). Concerns among parents, professionals, and society at large with children's aggressive behaviors have prompted a body of research during the last several decades. Researchers have attempted to explain the origins of aggression as well as those factors contributing to its development or maintenance.

To understand the complex phenomenon of aggression in young children, several aspects need to be considered. The following sections in this chapter will examine (1) historical perspectives on young children's aggression and school disturbance in America; (2) three theoretical approaches to aggression including social learning theory, social information processing, and developmental models of child antisocial behavior; (3) the influence of demographic variables such as socioeconomic status (SES), race/ethnicity, and gender on children' aggression; (4) the influence of children's individual competencies, including social competence, social cognitions, and language ability on aggression; (5) the effects of prevention and intervention efforts for early childhood aggression, including an overview of the Second Step Curriculum; and (6) a description of the purpose of this study in examining children's social cognitions and social competence after participating in the second step violence prevention curriculum.

Historical Perspectives on School Disturbance in America

Aggression and violence in schools are not recent phenomena. Indeed, this problem is as old as the concept of "school" itself. Societies around the world have recorded concerns with juvenile misbehavior and the United States is no different (Crews & Counts, 1997). However, school authorities operating during different periods in American history vary in their definitions of the problem.

For example, during the colonial period (i.e., 1600-1780), the education of children in America was unsystematic and unregulated. Children in and out of school were treated harshly and corporal punishment was the discipline technique of choice. During the early national period (1780-1860), and later in the common school era, conditions in school slowly began to improve. However, expectations of proper student behavior continued to be extreme, and corporal punishment remained as the norm. While many teachers (predominantly male) brutalized children with physical punishment, older male children were brutal to teachers by striking back (Crews & Counts, 1997). The progressive era (1860-1960) brought many changes in the way schools viewed discipline, as well as what was considered delinquent student behavior. The implementation of structured teaching practices reduced the need for corporal punishment. However, by the 1950's gang activity outside of schools was thought to be influencing some of the violent behaviors committed in schools (Stouffer, 1952 as cited in Crews & Counts, 1997). From 1960 to the present, disruptive acts committed by students have changed in intensity from theft and running in the halls to more violent acts such as robbery, rape, assaults on teachers and other students, and murder. It was during this era that the term "school violence" was coined to describe what was occurring in America's schools and the media began giving attention to the problem (Crews & Counts, 1997). The 1980's and 1990's saw an increased effort in the reduction of youth drug use and abuse, while tougher consequences for transgressors were favored.

Without doubt, schools have changed in the last few decades, with the result being that many teachers end up spending considerable amounts of time managing classroom conflicts. Children who demonstrate poor conflict management often exhibit aggression. In today's schools, aggression is usually punished with detentions, suspensions, and expulsions (Dwyer, 1999, in the National Mental Health and Education Center, 2000; Johnson & Johnson, 1995).

Educators, parents, and the community agree that truly effective schools must pay attention to diverse issues that involve children, rather than focusing mainly on academic instruction. Thus, schools must attend to children's social and emotional learning by deliberately teaching children behaviors such as sharing, helping, initiating relationships, requesting help from others and empathizing. These behaviors will provide children with the necessary tools to optimize their life skills and competencies. Moreover, these issues certainly play a major role in violence prevention in the schools (The National Mental Health and Education Center, 2000).

Theoretical Frameworks for Aggression

Preschool children's aggressive behaviors have been the focus of numerous studies in the last several decades (Bandura, Ross, & Ross, 1963; Patterson, 1986). Attempts to explain and account for aggression in children and youth have taken different routes in the field of psychology, based on the researcher's school of thought. For example, numerous researchers view aggression as a learned behavior (Bandura et al., 1963; Eron, 1997), with the main focus of studies being on the effects of the environment on children's aggression such as witnessing an aggressive model (e.g., see Bandura's social

learning theory, 1963, 1978). Although the modeling role of the environment is important in explaining aggression, it is not sufficient. In fact, studies of children's social cognitions provide insightful information on how young children process social information that results in aggressive responses (i.e., Huesmann, Moise & Podolski, 1997). Developmental models of child antisocial behavior (e.g., Reid & Eddy's, 1993, 1997) also contribute to the understanding of aggression in terms of a developmental trajectory of antisocial behavior (including a host of risk and protective factors throughout development). Within that framework, aggressive elementary children are seen at a higher risk than aggressive preschoolers. The following section examines those theories and their contributions to the understanding of childhood aggression.

Social Learning Theory

Social learning theory has been extensively applied to the study and understanding of aggression (Bandura, 1978). Bandura's social learning theory explains human behavior as a continuous reciprocal interaction among environmental, cognitive, and behavioral influences (Salkind, 1985). In other words, the individual actively operates on the environment responding to expectancies and contingencies. However, cognitions play an important role in this framework in that the individual's knowledge or foresight influences his performance even before the behavior occurs. Thus, "the cognitive evaluation of events taking place in the child's environment and how competent he or she feels --self-efficacy--in responding in different ways are important in determining the child's behavior at that time and also in the future" (Eron, 1997, pp. 143-144).

According to Bandura (1986) four processes are necessary for observation learning to occur, i.e., attention, retention, motoric responses, and motivation (see table 1-1 for a brief overview).

Contemporary learning theory emphasizes the notion of *vicarious reinforcement* in observational learning (Miller, 1993); the observation of others being reinforced or punished for a particular behavior provides children with information that the behavior is desirable or undesirable based on those effects. Thus, vicarious reinforcement results when there is an increased response to a behavior that the individual has seen reinforced in others.

Table 1-1. Processes Involved in Observational Learning (Bandura, 1986)

-
- 1) Attentional processes refers to a necessary condition to learning and being determined by modeled events, observer characteristics, and “structural arrangement of human interactions” (p. 51);
 - 2) Retention processes refers to the individual’s ability to remember (i.e., retention of knowledge in symbolic form) those activities that have been modeled at a particular time. Retention processes requires symbolic coding, cognitive organization, symbolic rehearsal, and motor rehearsal;
 - 3) Motoric production processes that converts symbolic conceptions into actions (i.e., behavioral productions); and
 - 4) Motivational Processes includes external reinforcement (i.e., tangible rewards, social and status rewards), vicarious reinforcement (i.e., observed reward and observed punishment), and self-reinforcement (i.e., self-reward, self-punishment).
-

Within his social learning theory, Bandura (1978) developed a theory of aggression which posits that aggressive behavior may be learned from three main sources, including the family, the subculture where the individual lives (i.e., school, community), and the mass media (in its provision of symbolic modeling, e.g., television, video games). Over the past few decades, great concern has arisen about the influence television and video games have on the development

of aggressive and prosocial behaviors in children (Salkind, 1985). Through observational learning and vicarious reinforcement, children “learn both specific aggressive behaviors and cognitions supporting more complex aggressive behavior” (Huesman, Moise, & Podolsky, 1997, p. 186). For example, the extent that a child imitates an actor (from television) depends for the most part on the reinforcement the actor received; thus if the actor is seen as being rewarded for aggressive behavior, the child is more likely to imitate such behavior.

Of the many studies Bandura conducted, *the bobo doll studies* (Bandura, Ross & Ross, 1961) provide an illustration of observational learning and aggression. Bandura and colleagues’ study examined whether exposure to aggressive and non-aggressive models influenced preschool children’s level of aggression when the modeling agent was removed. Children in the study were divided into groups and all were exposed to several conditions, including half the children observing same sex models and the other half opposite sex models. The child and the adult were then taken into the experimental room and the model performed one of two behaviors. In the aggressive condition, the model played with Tinker Toys and then began acting aggressively towards an inflated doll, while verbalizing aggressive remarks. In the non-aggressive condition the model simply played with Tinker Toys, being oblivious of the doll. Following this observation, and to test for aggressive modeling or imitation, each child was placed in a room containing various toys, including the ones in the experimental room for twenty minutes and his or her behaviors were recorded. Results indicated that those children who witnessed the aggressive model responded

more aggressively than the control group who witnessed the non-aggressive model. In addition, boys demonstrated more aggression than girls when they observed an aggressive male model.

Social Cognitions: Social Information Processing Models

In the last few decades, several researchers have presented theories that associate children's cognitions with the learning and maintenance of aggressive behaviors (e.g., Dodge, 1982; Crick & Dodge, 1996; Huesmann et al., 1997; Katsurada & Sugawara, 1998). These theories emphasize the role of cognitive processes and the steps through which the child proceeds to react to social situations appropriately and in non-aggressive ways (Huesmann et al., 1997). Social information processing models on aggressive behavior hypothesize that a child's aggressive response to a social situation appears from a "systematized series of sequential mental operation" (Dodge & Schwartz, 1997, p. 171). These operations allow the child to internally represent and interpret social situations with a resulting behavioral outcome. Thus, competent information processing is likely to result in adaptive social behavior; ineffective information processing, on the other hand, is likely to lead to negative outcomes (e.g., aggressive behavior).

Much of the research conducted on information processing models of aggression has been conducted by Dodge and his colleagues (Dodge, 1980; Dodge & Frame, 1982; Dodge & Tomlin, 1987), who later expanded their model to consider important issues in the processing of aggression such as subtypes of aggression. These subtypes include reactive and proactive aggression and will be examined in the following sections.

Hostile attributional bias. Dodge and colleagues found that aggressive elementary school-aged children have a tendency to misinterpret social cues. In other words, aggressive children often attribute hostile intent to others, even in those situations that provided them with evidence contrary to the fact. Furthermore, when compared to non-aggressive peers, aggressive children exhibit a series of cognitive deficits, including limited problem solving skills, impulsive social decision making, lack of attention to social cues, poor social reasoning, lack of empathy, and poor perspective taking. Dodge's social information model of social competence levels and aggression proposes six processing stages, each characterized by a specific mental operation or sets of operations (for an overview of the model and the stages see Crick & Dodge's 1994 article). Processing in this model is presumed to be sequential, although there is feedback between stages. This in turn influences the individual's process of internalizing environmental events and selecting a particular response. Stages in this model include (1) receipt and perception of social cues (input); (2) interpretation of social cues; (3) clarification of goals; (4) response access or construction; (5) response evaluation and decision stage; and (6) behavioral enactment of the chosen response. Dodge and colleagues' model suggests that children who demonstrate inappropriate and unacceptable behaviors may lack the skills required to understand the intention of others as well as to generate and select the appropriate response for a particular social situation.

Considering that most of the research done in hostile attributional bias and aggressive behavior has been conducted on school-age children (Dodge &

Frame, 1982), an important piece of information was lacking regarding preschool children's perceptions of aggressive situations. Katsurada and Sugawara (1998) examined the association between hostile attribution bias and aggressive behaviors among preschool children. A hostile attributional bias is defined as a tendency of generally physically aggressive children to attribute hostile intent in the actions of others even when intent may be ambiguous or even benign in nature (see Crick & Dodge, 1994, for a review). Katsurada and Sugawara's study found that hostile/aggressive children were significantly more likely to exhibit a hostile attributional bias than less aggressive children. Furthermore, their study provided evidence that preschool children were able to differentiate between intentional and unintentional actions when presented with concrete stimulus materials that were familiar to them (i.e., vignettes presented to children included same-aged children playing with materials or equipment typically found in preschool settings).

Dodge's model helps us understand individuals' processing of social information (from stage one to stage six) that results in adaptive or maladaptive social responses (e.g., aggression). However, research on the subtypes of aggression, including reactive and proactive aggression, provides another important piece in understanding this complex phenomenon.

Proactive aggression. Crick and Dodge (1996, p. 93) define proactive aggression as "a deliberate behavior that is controlled by external reinforcement" (i.e., it is a means for obtaining a desired goal). Proactive aggressive children evaluate aggressive acts in ways that are likely to cause them to expect relatively

positive outcomes for being aggressive. These children also feel more confident in their ability to be aggressive than do their peers who are non-aggressive. That is, proactive-aggressive children are likely to view aggression as an effective and viable means for obtaining social goals. Because peers are likely to submit to aggressive overtures, the positive view of aggression held by proactive-aggressive children may become stronger over time. For example, obtaining a toy from a peer is preferable to becoming friends with that peer (Crick & Dodge, 1996).

Reactive aggression. Reactive aggression, on the other hand, is defined as “an angry, defensive response to frustration or provocation” (Crick & Dodge, 1996, p.993). Children who interpret others’ behavior as intentionally malicious may use aggression as a retaliation or defense against the perceived threat. Unlike proactive aggression, Crick & Dodge (1996) believe that children who are reactive-aggressive do not behave aggressively towards peers in order to achieve a predetermined goal. This type of aggression is impulsive and is often accompanied by feelings of intense anger, which may lead to out-of-control behaviors for which the child does not consider the consequences. Hostile attributional biases may serve as the basis for a negative cycle of peer interactions in which peers may actually become more hostile toward the child, thus verifying the child’s initial interpretation (Dodge & Crick, 1996). Reactive aggressive children are more likely to report hostile attributional biases than proactively aggressive children. Unfortunately, in the early elementary years, hostile attributional biases also have been shown to predict the continued use of

aggressive acts by the child (Dodge, Bates, & Pettit, 1990). The extent to which this is evident during the preschool years is less clear. Research on reactive/proactive aggression suggests that different mental processes account for each type of aggression (Dodge & Schwartz, 1997). Reactive aggression appears to involve encoding and interpretation of social situations, whereas proactive aggression seems to be related to positive evaluations of aggressive behavior (e.g., response decision stage).

Relational aggression. A third type of aggression more recently addressed in the literature is relational aggression (Crick & Grotpeter, 1995). This form of aggression is less physical or verbal in nature and uses relationships as an instrument of harm. This is done by “ostracizing and withdrawing friendship behaviors that are intended to cause psychological harm by damaging relationships with peers” (McNeilly-Choque, Hart, & Robinson, 1996, p. 48). An example of relational aggression is seen in the child who excludes some children from playing in a group, gossiping, etc.

Research on relational aggression (Crick & Grotpeter, 1995; Crick, Casas, & Mosher, 1997; McNeilly-Choque et al., 1996) has bridged the gap on types of aggressive behavior that is not overt in nature, providing the field with important information regarding girls’ aggression; a population that may have been underestimated regarding aggressive behavior (McNeilly-Choque et al., 1996). Relational aggression research has received strong support from the literature as a viable form of aggression (McNeilly-Choque et al., 1996), most often exhibited by girls rather than boys (Crick & Grotpeter, 1995; Crick et al., 1997; McNeilly-

Choque et al., 1996). Researchers examining the development of relational aggression have found evidence that relational aggression is present as early as during the preschool years. An example of relational aggression in preschoolers is seen in the child who threatens to stop being a peer's friend in order to hurt the child or get something from that child.

Developmental Model of Antisocial Behavior

Closely related to social information processing of aggressive behavior (including reactive/proactive subtypes of aggression) and social learning theory is a developmental model of aggression that illustrates a life course pathway toward antisocial behavior that may begin even before birth. In addition, this trajectory towards antisocial behavior can "increase in velocity and intensity through successive antecedents during childhood and adolescence" (Reid & Eddy, 1997, p. 345).

Antisocial behavior is believed to be quite stable throughout development (Reid & Curry, 2002). Lipsey and Derzon (1998) conducted a meta-analysis of the literature on risk factors and later antisocial behavior. In their analysis of school age populations, they found that the greatest risk factor for future antisocial behavior was a history of antisocial behavior. The coercion model for the development of youth antisocial behavior attempts to explain the developmental path of antisocial behavior in terms of negative reinforcement (Reid & Eddy, 1997). Negative reinforcement as defined in the behavioral literature is a process that strengthens a particular behavior by removing or avoiding an aversive stimulus that follows a behavior (Miltenberger, 1997). An illustration of negative reinforcement is exemplified when a mother buys her child

candy at the grocery store when he tantrums, which is immediately followed by the child stopping the tantrum. Through this dynamic, “the child learns the adaptive value of coercive behavior through escape conditioning; likewise, the parent is taught, through negative reinforcement, to placate the coercive child by acquiescing” (Brennan, Hall, Bor, Najman, & Williams, 2003, p.309). As Reid and Eddy (1997) emphasize, risk factors and coercive behavior are strongly determined by timing of occurrence, with age at the time of onset as probably the most significant risk factor for antisocial behavior.

This developmental model has received strong empirical support (Brennan et al., 2003), with recent research addressing some of the gaps in this literature, particularly in measuring the effect of the early years of development (i.e., birth to five years of age) in relation to early-onset and late-onset antisocial behavior (Aguilar, Sroufe, Egeland, & Carlson, 2000). In their study, Aguilar and colleagues (2000) gave children birth to age four a comprehensive battery of psychological and neurological tests to examine the influence of the early years of life on future negative outcomes. In their examination they found that those children with early-onset persistent behavior problems had in common greater psychosocial adversity since birth and beyond.

Contributing Factors to Aggression in Young Children: Demographic Factors and Children’s Individual Competencies

The Developmental Model of child antisocial behavior provides a heuristic framework for understanding children’s aggression. Research conducted in the last few decades has provided information on the antecedents, development, maintenance, and epidemiology of aggressive, antisocial behavior (Eddy & Reid,

1997). Furthermore, this literature has examined the contextual and proximal antecedents (i.e., environmental and individual behavioral risk factors) along development that subsumes the two previously reviewed theoretical frameworks (i.e., social learning theory and social information processing) in explaining aggression and antisocial behavior.

This literature supports the fact that the developmental path to antisocial behavior is determined not just by the presence of any single risk factor but a conglomerate of such factors interacting over time, with timing of the occurrence being of critical importance (Loeber & Farrington, 1998; Patterson, Reid, & Dishion, 1992; Walker, 1998; Walker & Hill, 1999).

The Influence of Risk and Protective Factors on Aggressive Behavior

A child's development is strongly influenced by the presence of risk and protective factors that are likely to either obstruct or facilitate development. Risk factors are generally associated with negative outcomes, whereas protective factors are associated with buffering and counteracting the negative effects of risk factors. It has been argued that the presence of risk factors is important in predicting future antisocial behavior, but the *quantity* and *duration* of risk factors can have a more detrimental negative effect (Patterson, Reid, & Dishion, 1992). Both risk and protective factors co-occur at various contexts throughout development including child and family factors, school contexts and community and cultural factors (Walker & Shinn, 2002).

The literature on risk/protective factors refers to two especially vulnerable times in a child's development: the periods comprising the years from birth to five

and from Kindergarten to fifth grade. These are the most critical ages for introducing preventive initiatives to counterbalance later negative outcomes such as delinquency and failure in school (Walker & Shinn, 2002).

Walker and Shinn (2002) conducted a comprehensive review of the literature regarding risk and protective factors associated with antisocial and criminal behavior. From their review they generated a list of risk factors associated with later negative outcomes, including: (a) child factors such as poor problem solving, beliefs about aggression, attributions, poor social skills, low self-esteem, lack of empathy, and impulsivity; (b) family factors such as parental characteristics (i.e., teenage mother, single parent homes, antisocial models), family environment (i.e., large family size, absent father, family violence), and parenting style (i.e., poor supervision and monitoring, harsh discipline style, lack of affection, neglect); (c) school context including bullying, beliefs about aggression, failure in school, poor behavior management; and, (d) community and cultural factors including low socioeconomic status, neighborhood crime and violence, beliefs about aggression as acceptable responses to conflict, and lack of support services). However, these authors emphasize that those risk factors that have the most direct link with future antisocial behavior include “(a) getting in trouble with the teacher, (b) failure to engage and bond with the process of schooling, (c) being socially rejected by teachers and peers, and (d) failing academically, especially in reading” (p. 9).

On the other hand, child protective factors associated with positive outcomes include social competence, social skills, empathy, problem solving,

internal locus of control, and good coping skills. Family factors include supportive and caring parents, small family size, secure and stable families, and norms within the family. Similarly school, community, and cultural factors include a positive school climate, prosocial peer group, participation in church or community groups, school and community norms against violence, and strong cultural identity (Walker & Shinn, 2002).

Clearly, school cannot undertake the responsibility for non-school risk factors associated with negative outcomes. However, a critical role for schools is to boost those protective factors within the child and the surrounding environment (e.g., academic, social-emotional, support systems) to counteract the potential negative effects of known risk factors, particularly in the academic and interpersonal domains (Walker & Shinn, 2002).

Demographic Characteristics

Research examining the relationship between demographic characteristics and preschool children problem behavior has found that aggressive children tend to exhibit greater difficulties in both language and cognitive development (Leadbeater & Bishop, 1994). Socioeconomic status is consistently reported as playing a role on children's behavior problems mediating a host of socialization influences, such as the observation of aggressive models, stressful life events, cognitive under-stimulation in the home environment, and frequent changes in day-care and living arrangements with changes in the peer group (Dodge et al., 1994). Race/ethnicity is often referenced in the literature as correlating with children's social outcomes, with minority children having a greater likelihood to exhibit behavioral problems than non minority children. However, when these

correlations are considered in social, cultural, and economic contexts, the relationship between aggressive behavior and factors such as poverty, lack of opportunity, and discrimination becomes palpable (Soriano & Jimenez, 1994). Research suggests gender differences in children's approach to social conflict; boys tend to manifest overt forms of aggression, while girls tend to demonstrate covert aggression (Musun-Miller, 1993). Girls also have been found to exhibit relational aggression, using relationships as an instrument of harm.

In summary, the presence of a single risk factor in isolation is "usually far from a guarantee that such an [antisocial behavior] will actually occur" (Reid & Eddy, 1997, p. 32). As these researchers eloquently describe: "the early antecedent puts the child at risk for a second, more proximal, antecedent and so on, with the occurrence of each antecedent increasing the risk of poor adjustment during adulthood. Such sequences of contextual and behavioral risk factors, like mine fields, can be entered through any number of risk exposures" (p. 344). The main determinant of negative outcomes relates to the presence of several risk factors that interact over time, with timing and severity of the event of critical importance (i.e., developmental model of antisocial behavior; see Reid & Eddy, 1997).

Children's Individual Competencies

The literature on aggression suggests a strong connection between children's competencies (i.e., social cognitions, social competence, and language) and social functioning and adjustment (Arsenio, Cooperman, Lover, 2000; Brown & Dunn, 1996; Lochman & Dodge, 1994). Deficits in any of these areas may influence children's aggressive patterns.

Social skills and social competence. Among the factors addressed in the literature, the development of social skills and social competence is described as essential for the individual's social adjustment. These skills allow the individual to establish positive relationships with others, including parents, peers, and adults. The development of social skills and social competence become important tools to master upon school entry; tools which promote or impede adaptation to social demands, including peer groups and teachers. If these skills are not part of the child's repertoire, he or she may face negative outcomes such as peer rejection or early academic failure. These, in turn, have been associated with antisocial behavior (Crick & Grotpeter, 1995).

Social cognitions. Similarly, research suggests that children who demonstrate aggressive behavior often exhibit poor problem solving skills (Delveaux & Daniels, 2000; Lochman & Dodge, 1994). When children face challenging social situations, they have difficulties generating responses that are not aggressive in nature and understanding other people's motives (social perspective taking). Further, the ability to identify and label facial expressions and emotions are strongly related to children's social adjustment and prosocial behavior (Izard, Fine, Schultz, Mostow, Ackerman, & Youngstrom, 2001).

Language competence. From the previous discussion, language plays an important function in children's ability to identify and label emotions (an important skill when facing conflicting social situations; see Brown and Dunn's 1996 study). Furthermore, communication may provide the child the function of controlling his or her environment and thus, there appears to be a communicative intent on the

part of the child when exhibiting challenging behaviors (Goldstein & Woods, 2002). A behavioral outburst (e.g., yelling) enables the child to control a particular environment (home/school), which serves a communicative function (even when these behaviors are identified as inappropriate and deviant).

Demographic Factors Influencing Children's Aggression

Socioeconomic Status

A child's socioeconomic status is often reported in the literature as related to aggressive behavior in children and youth (Aber, Brown, & Jones, 2003; Duncan, Brooks-Gunn, & Klebanov, 1994; Garcia, Huesmann, Tolan, & Van Acker, 1995; Huston, McLoyd, & Garcia Coll, 1994; McNeilly-Choque et al., 1996). In general, researchers have found that children who experienced persistent high levels of poverty are at greater risk of exhibiting externalizing behaviors such as aggression or problem behavior during early childhood (Duncan, Brooks-Gunn, & Klebanov, 1994). However, poverty per se should not be conceived as the main predictor of aggression. Rather, factors associated with poverty, for certain people and certain times, are likely to increase the risk for aggression (Guerra, Huesmann, Tolan, & Van Acker, 1995). The literature on this subject describe as two influential factors that mediate the relationship between childhood aggression and low socioeconomic status the effect of family stress and the family's belief system regarding aggressive behavior (Guerra et al., 1995; Hart, Olsen, Robinson, & Mandlaco, 1996). Other influential factors include the neighborhood where the family live, day care settings, schools, and available group of peers (Duncan et al., 1994).

These findings have important implications for children's development, considering that information from the latest census (U.S. Bureau of the Census, Census 2000) reports that poverty status for families with children under 18 years of age comprises 13.6 percent of the total population of the United States in the year 2000. This percentage increases for those families with children less than 5 years of age, comprising 17 percent. The numbers are even more alarming for families with female householder. For those female single parents with children under 18 years of age, poverty status reflected 34.3 percent of the population; for those single mothers with children less than 5 years of age percentages increase to 46.4 percent.

Duncan and colleagues (1994) conducted a study to examine the effects of economic deprivation in children's development. Among other issues, these researchers examined the effects of timing and duration of poverty on children's developmental and behavioral outcomes. Results indicated that poverty status and family income were strong predictors of cognitive development and behaviors in children, even when controlling for other factors such as family structure (i.e., single parent) and mother's education. An interesting finding emerged from the influence of "persistent, never-married female headship as well as change in family structure that ends up in a female-headship situation" on children's externalizing behaviors (i.e., behavior problems, aggression), even when controlling for diverse family income (p. 313). This result suggests that mother's circumstances have an important effect on their children's behavior.

Similar findings are reported by Aber and colleagues (Aber, Brown, & Jones, 2003) and Dodge and colleagues (1994). Aber and colleagues' study (2003) examined the developmental trajectories towards violence and found that children on free lunch (a measure of poverty in the public schools) were rated as more aggressive than those on reduced or free lunch by their teachers.

Regression analysis showed that children receiving free lunch were at greater risk for behavioral problems than those on reduced or full price lunch. Dodge and colleagues' (1994) study found that socioeconomic status mediates children's socialization experiences. Their study revealed the relative risk of economic deprivation was evidenced in early-onset behavioral problems. Some of the socializing factors examined included parental characteristics (e.g., harsh disciplinary style, lack of warmth towards the child), family characteristics (e.g., observation of aggressive models within the home and the neighborhood, stressful life events and lack of social supports), and social contextual factors such as frequent changes in day care and housing conditions and insufficient cognitive stimulation and support for succeeding in school environments (e.g., limited number of books in the household).

Sociocultural and Institutional Considerations

The incidence of violence involving ethnic and racial minorities, in particular African-Americans, Latinos, and Asian-Americans, as both victims and victimizers, is disproportionate when compared to other groups. When these statistics are considered in social, cultural, and economic contexts, the relationship between violence and factors such as poverty, lack of opportunity,

and discrimination becomes apparent (Soriano & Jimenez, 1994). According to Vargas (1994), violent death rates for teens in 1990 were highest in districts or states with the greatest concentration of minorities.

Race and Ethnicity

Bernal, Saenz, and Knight (1991) theorize that youths most alienated from the dominant culture tend to engage in “cultural inversion,” in which the behaviors typically associated with the dominant group are considered inappropriate for their own group. Alienated young people from low status groups may redefine the values of the dominant culture in oppositional, self-destructive ways (Goldstein & Conoley, 1997). Other issues relating to school policies and practice also may set the stage for school violence. For example, failure to validate the voices of students or parents, unequal allocation of financial resources, and stereotypical programming in terms of educational placement and discipline strategies have been associated with antisocial behavior (Goldstein & Conoley, 1997).

Children from non-Anglo cultures also may have interactional styles that differ significantly from the predominantly Anglo style of the schools. Research by Feng and Carledge (1996) found that teachers perceive African-American students as having poor self-control and conflict resolution skills. Other studies have suggested that African-American students make more verbally aggressive statements such as “name calling,” and “talking back to the teacher.” African-American students also reported that they would more often employ aggressive alternatives when treated unfairly, and they are taught not to seek assistance

from adults or to negotiate problems, but rather to respond to aggression with aggression—either verbal or physical (Goldstein & Conoley, 1997). Research by Patterson, Capaldi, and Bank (1991) has found that excessive verbal and/or physical aggression is predictive of academic failure, delinquency, and various types of adult psychopathology.

Hispanic-Americans have similar problems to African-Americans. In this case, interpersonal difficulties are believed to be linguistically based. Hispanic-Americans have been described as being more verbally assertive, initiating verbally aggressive statements, and having problems with discussing feelings and offering opinions (Carlson & Stephens, 1988; Moore, 1988). Currently, Hispanic youth make up approximately one-third of gang membership (Soriano, 1993). Not surprisingly, homicide rates for this minority group are estimated to be 3-4 times greater than non minority peers (Hammond & Yung, 1993).

In contrast, Asian-American youth have a different problem. Teachers generally profile these students as cooperative, self-controlled, and task-oriented (Cartledge & Feng, 1996). Overgeneralizations of these positive attributes may lead to significant behavioral problems when school difficulties are overlooked (Goldstein & Conoley, 1997). For the most alienated of the Asian-American youth population, gang membership offers a sense of belonging, support, respect, and in some cases, a common language (Cowart & Cowart, 1993).

Gender

An immense body of research on gender differences and on gender similarities has been conducted in the social sciences. Some of the findings from this research suggest that children, even as young as three, have a rudimentary

knowledge of sex roles stereotypes (Picariello, Greenberg, & Pillemer, 1990), demonstrate friendship preference for same sex peer (Benenson, 1993), and even before labeling gender they possess knowledge of gender categories (O'Brein, 1992). Research by Cupach and Canary (1995) indicates that gender differences regarding sex-stereotypes become less salient with age, which suggests that gender differences are more evident in young children.

The relationship between gender and behavior has also been examined, and studies have found that gender impacts a child's behavior in various contexts including play, artwork, and even in the counseling process (Benenson, 1993; Flannery & Walson, 1995; Scher & Good, 1990). Studies examining children's drawings provide some insight regarding gender differences and aggressive behavior. Flannery & Waltson (1995) examined the drawings of elementary school children (ages 8 through 11 years) and discovered that boys' drawings had more aggressive content than those of girls.

Gender differences have also been examined in preschool children's ability to identify and explain basic emotions (Brown & Dunn, 1996). Girls appear to be more skilled than boys in decoding and explaining emotions. These authors hypothesize that "girls' reasoning about the social world may derive more directly from experiences within significant relationships than that of boys" (p. 800). Similarly, research on adolescents' problem solving strategies for conflict situations also suggests a gender difference. This research presents males as describing strategies that involve more aggressive solutions than females did (Lindeman, Harakka, & Keltikangas-Jarvinen, 1997).

Some of the literature on aggression and social conflict point to the fact that boys and girls approach conflict in different ways; boys appear to be more physically aggressive than girls when faced with social conflicts (Musun-Miller, 1993). It has been hypothesized that boys' preferences for rougher play, bodily contact, and greater use of verbal taunting, lead them to experience and engage in conflictive situations at a higher rate than do girls (Maccoby & Jacklin, 1987). In a study of 6 and 7-year old children, Miller and colleagues (Miller, Danaher, & Forbes, 1986) videotaped young children playing in the playground. Their analysis indicated that boys engaged in conflict and or aggressive behavior more often than girls did. Furthermore, boys tended to use physical aggression and threats, whereas girls tended to dissolve conflict.

However, there is no general agreement regarding gender differences in conflict, aggressive behavior, and or social competence. In an earlier study to that of Linderman and colleagues (1997), Ohbuchi and Yamamoto (1990) interviewed elementary and middle school children about solutions they would provide to hypothetical situations presented to them. They found that girls provided a greater number of solutions than boys, although they found no gender differences for aggressive solutions. Furthermore, definitional issues regarding aggression makes this issue more intricate; traditional definitions of aggression including physical aggression (i.e., the intent to inflict physical harm) and or verbal aggression (i.e., yelling, threats, etc.), leave out other forms of aggression, that are less physical or verbal in nature (Rys & Bear, 1997).

Crick and Grotpeter (1995) examined this issue and their studies addressed other forms of aggression they termed “relational aggression.” This research has received strong support from the literature as a viable form of aggression exhibited most often by girls rather than boys (Crick & Grotpeter, 1995; Crick, Casas, & Mosher, 1997; McNeilly-Choque, Hart, & Robinson, 1996).

Researchers examining the development of relational aggression have found evidence that relational aggression is present as early as during the preschool years. The literature in this area is consistent in presenting preschool girls as more relationally aggressive than preschool boys; boys on the other hand present with greater overt aggression (i.e., hitting, pushing) than girls (Crick et al., 1997; McNeilly-Choque et al., 1996).

The previous discussion warrants an examination of whether socially competent children vary as a function of gender differences. In other words, do the social skills required to become socially competent differ for boys and girls? A similar scenario may be examined for children identified as exhibiting antisocial or aggressive behavior: Do boys differ from girls in terms of aggression? Putallaz and colleagues (Putallaz, Hellstern, Sheppard, Grimes, & Gladis, 1995) raised their concern regarding the limited amount of research conducted on the effect of development and gender differences in children’s social competence.

The Influence of Children’s Individual Competencies on Aggression

Research suggests that children’s individual competencies, including social competence, social cognitions and language ability are important factors to consider in examining children’s aggressive behaviors. Childhood aggression is an important predictor of social functioning and adjustment or maladjustment

(Arsenio et al., 2000). The following sections examines these areas in more detail.

Social Competence

Research indicates that children who exhibit problem behavior may lack the necessary social skills to effectively relate to a non-deviant peer group (Dodge, 1983). Observational studies of children and youth exhibiting antisocial, aggressive behavior reveal that social competence may be considered an important factor in determining peer acceptance or rejection. Children who demonstrate aggressive behavior as well as poor social skills are more likely to be rejected by peers than those aggressive children who exhibit greater degrees of social competence (Newcomb, Bukowski, & Pattee, 1993). A child's social competence will not only account for peer acceptance or rejection, but it is also considered a more powerful predictor of school achievement than intellectual ability (Wentzel, 1991).

From the previous discussion, the need to clarify the concepts of social skills and social competence becomes apparent. Numerous definitions are found in the literature regarding social skills (Gresham, 2002). These include: (a) the peer acceptance conceptualization (i.e., socially skilled individual based on level of acceptance/rejection by peer group); (b) behavioral definition ("social skills as situationally specific behaviors that have an increased likelihood of being reinforced and a decreased likelihood of being punished or extinguished" p. 405-406.); and, (c) social validity conceptualization (based on the resulting social outcomes of children or individuals). Gresham (2002) describes these important social outcomes as those outcomes that make a difference in terms of the

individual's functioning or adapting to societal expectations. Examples of social skills from a social validity definition include peer acceptance, adult acceptance, and school adjustment. The social validity definition provides a useful distinction between social skills and social competence, with the former defining behaviors within the individual and the latter reflecting a judgmental evaluation of specific behaviors by others. Waters and Sroufe (1983) emphasize the need to operationalize social competence with regard to the developmental status of the child; thus, a measure of age appropriate social competence for preschool children may be the child's degree of success in the peer group.

Schools may be viewed as subcultures where children spend a considerable amount of time. Thus, teacher competencies and characteristics are likely to influence a child's social competence and adjustment (Feshbach & Feshbach, 1987). Furthermore, in school settings, children who are described as being at risk for problem behavior or emotional difficulties are singled out based on behaviors that do not match the teacher's expected pattern of social behavior or these behaviors surpass the teacher's tolerance for what she considers appropriate behavior in the classroom (Gresham & MacMillan, 1997). Moreover, children with high degrees of social competence and "understanding of the teacher's perspectives as well as that of other children should facilitate more responsiveness in learning situations and thereby greater achievement in the acquisition of school-taught skills" (Feshbach & Feshbach, 1987).

Cognitive Skills (social cognitive mediators of aggression)

Researchers often study children's adjustments by examining their social cognitions (Crick & Dodge, 1994). In fact Crick and Dodge's *reformulation of social information processing mechanisms in children's adjustment* (1994) model views children as processing external stimuli through sequential stages (see page 11 in this chapter) that eventually lead the child to enact a behavioral response. Children who possess skillful and efficient processing of social cues are likely to develop and exhibit socially competent behaviors; inefficient processing increases the likelihood that children will demonstrate aggressive behavior.

Some of the research on cognitive factors in children's aggression has examined a pattern of cognitive biases and deficits that may influence some children to react aggressively. Among these deficits, studies have found that some children react aggressively because they attribute hostile intent to other children when facing provocation (they search for fewer social cues) and they lack skills that are necessary for generating competent responses to negative situations (Quiggle, Garber, Panak, & Dodge, 1992). The following section groups these deficits in three main areas including difficulty enacting empathic responses (Feshbach & Feshbach, 1987), difficulty recognizing and labeling emotions, and deficits in social problem solving (Delveaux & Daniels, 2000; Lochman & Dodge, 1994).

Empathic responses. Cognitive skills appear to mediate an individual's empathic responses (Feshbach & Feshbach, 1987). Empathy in this context is

defined as the individual's "tendency to experience and share affective responses observed in others" (p. 1336). Despite the emotional features of this definition, empathy is determined by two cognitive components including "the ability to discriminate affect cues in others and the ability to assume the perspective of another person" (p. 1336). Aggressive children appear less able to construct non aggressive responses or understand others' motives (perspective taking) when facing social situations.

Emotion knowledge. Moreover, these researchers provided evidence that the ability to recognize and label emotions in the elementary grades is related to later social adjustment and academic achievement. Longitudinal research by Izard and colleagues, (Izard et al., 2001) examined emotion knowledge as a predictor of social behavior and academic achievement outcomes in children from low socioeconomic status from the time they were five years of age. Findings from their study indicate that preschool children's abilities to identify and translate emotion cues from others (i.e., facial expressions) have important effects later on in children's social behavior and academic achievement. These results were even present after controlling for the effects of verbal ability (research has shown that verbal ability predicts later social behavior, Izard et al., 2001).

Social problem solving. Children who exhibit aggressive tendencies have greater difficulties attending to social cues, attribute hostile intent in others, generate more aggressive and inappropriate social responses and fewer

assertive responses (than their non aggressive peers), and appear to value aggressive responses more than assertive responses (Quiggle et al., 1992).

Language and Communication Competence

Webster's dictionary defines language as a "systematic means of communicating ideas or feelings by the use of conventionalized signs, sounds, gestures, or marks having understood meaning" (Webster's Third New International Dictionary, 1993). Thus, language is an arbitrary code of symbols that represent ideas, objects, thoughts, and events, providing a framework for individuals to relate to past, present and future events (Goldstein & Woods, 2002). Language and communication are inextricably intertwined with other areas of development (i.e., social, emotional, cognitive, motor) in that they provide the vehicles for expressing oneself, becoming aware of the surrounding environment and acting upon it. Language, in school and social settings, is the primary vehicle for learning and establishing successful social interactions.

Language development and communicative competence are considered among the most important areas for success in education, employment, and social relationships (Goldstein & Woods, 2002). Furthermore, studies indicate that young children's ability to recognize and label emotions is strongly related to their social adjustment and academic achievement (Izard et al., 2001).

In a longitudinal study of the language development of American children, Hart and Risley (1995), found that the most important predictor of communication competence by age 3 was the amount families (i.e., caregivers) spent talking to their children. It was found that these conversations had the effect of augmenting the child's ability to problem solve, as well as increasing the child's vocabulary

size, range of expressions, and frequency of both initiations and turns taken during conversations.

Furthermore, language ability in children as young as three years is related to the child's understanding of basic emotions, including the recognition and production of emotional expressions and responses to another child's distress (Brown & Dunn, 1996). Goldstein and Woods (2002) outlined a model that presents various interrelated influences (i.e., child, caregiver, and community over time) on communicative competence. Of particular interest are some of the associated communicative outcomes that affect development including behavior regulation, social interaction, receptive and expressive communication, problem solving, social and symbolic play, and emergent literacy and reading. They also provide a list of general communication competence milestones expected at various points during the first five years of life.

Communicative competence. For the purpose of this study, the areas of social interaction and behavior regulation, problem solving, and social and symbolic play merit further exploration within the 3 to 5 year-old period as they relate to social competence. From the general communication competence list provided by Goldstein and Woods (2002), skills that children at this age are expected to acquire include the ability to demonstrate awareness of social aspects of conversations, turn taking, amount of information needed by listener, use of representational thinking, and being able to integrate spatial, cause-and-effect, and representational thinking into problem solving. These skills are likely to have a significant effect on successful social relationships and school success.

Research on the functions of language suggests that communication and language may serve the child the function of controlling his or her environment in those occasions that a child tantrums to obtain something for example. Thus, it may be hypothesized that this challenging behavior allows the child to control his environment and therefore this behavior may have a communicative intent (Goldstein & Woods, 2002). The child's behavioral outbursts may be seen as vehicles for controlling a particular environment, even when these behaviors are considered deviant and not appropriate means of communication. This fact has important educational implications in that children with challenging behaviors may be taught more appropriate communication skills that will positively impact the child's development, academic achievement, social interactions and relationships, and even prevent or reduce antisocial behavior, violence, and crime (Patterson, Reid, & Dishion, 1992).

Other studies have examined the relationship between language and antisocial behavior, with the intent to identify causal mechanisms underlying these two constructs. Moffitt and colleagues (in Aguilar et al., 2000) have suggested that a relationship exists between neuropsychological deficits (particularly language and verbal deficits) and antisocial behavior. Longitudinal studies examining this issue reveal that this association is not causal in nature, but reflects a statistical association (i.e., the two variables are statistically related). In other words, language ability moderates aggressive behavior. These authors found that what distinguishes early-onset persistent type from the adolescent type is primarily linked to psychosocial history.

Prevention and Intervention Efforts for Early Childhood Aggression

Childhood aggression predicts later high-risk behaviors including delinquency, dropout, and maladjustment (Frey, Hirschstein, & Guzzo, 2000). Further, the developmental research literature (i.e., Brennan et al., 2003; Reid & Eddy, 1997) indicates that youth antisocial behavior may have its origins in early childhood (i.e., early-onset path). Thus, the opportunity to positively impact young children's lives through interventions merits further thought. Research suggests that prevention efforts are successful in deterring aggression, when promoting constructive behavioral alternatives to aggression. This is based on literature suggesting that young people at risk for behavioral problems often lack the foundational social and emotional competencies that are important for school success (Wentzel, 1991; Wentzel & Wigfield, 1998), family relationships (Gottman, Katz, & Hooven, 1996), and the workplace (Spencer & Spencer, 1993). Some researchers suggest that the early acquisition of readiness skills (i.e., social and academic skills before children enter Kindergarten) has the ability to positively impact children's developmental outcomes (Feil, Severson, & Walker, 2002). Two facts that have important implications for prevention efforts aimed at reducing aggression in young children include: (1) social and emotional skills can be taught and, more importantly, (2) aggressive behavior in youth can be ameliorated by promoting foundational social and emotional skills early on (Frey et al., 2000). Thus, taking these two facts, early childhood violence prevention programs should include in the curriculum the acquisition of social-emotional competency, including empathy, social problem solving, and anger management.

Research suggests that between 20 and 45 percent of serious offenders exhibited violent behavior in early childhood (D'Unger, Land, McCall, & Nagan, 1998). Furthermore, Kazdin (1987) emphasizes the fact that antisocial behavior patterns by age eight become more chronic in nature, thus, remediation becomes only effective by appropriate interventions and supports.

All these facts emphasize the urgent need for violence prevention efforts that target the early childhood population. Early childhood is a critical time in children's life where various skills are learned and internalized. Social learning theory posits that aggression and violent behavior can be learned (Bandura, Ross & Ross, 1963), and often this learning occurs early in life. Moreover, research suggests that children who exhibit weak social and emotional skills (e.g., social problem solving, peer rejection, emotion knowledge, etc.) have a higher risk of exhibiting problems in school (Wentzel & Wigfield, 1998), as well as later in life (Spencer & Spencer, 1993). Thus, prevention of violence early in life (e.g., primary prevention) lessens the likelihood of engaging in violent acts while promoting targeted skill acquisition (U.S. Department of Health and Human Services, 2001). According to the U.S. Department of Health and Human Services (2001) effective strategies for universal violence prevention programs should include skills training, behavior monitoring and reinforcement, behavioral techniques for classroom management, continuous progress programs, and cooperative learning.

Furthermore, successful prevention programs in schools have a common factor of intervening at various levels; from building school capacity for change,

to explicate and communicate expected behavior and school rules. Similarly, at the student level the provision of comprehensive instructional programs that focus on various social competence skills including social problem solving, self-control, stress management, and communication skills (see Gottfredson, 1997 in Sugai, Horner, & Gresham, 2002).

The following section examines the Second Step Violence Prevention Curriculum, a widely used violence prevention curriculum in the schools. The areas examined include the theoretical framework underlying the curriculum and the research conducted to explore its effectiveness.

Description and Overview of the Second Step Violence Prevention Curriculum

A successful and widely used universal violence prevention curriculum is the Second Step Program (Committee for Children, 1992; see their website for program awards and recognitions by Federal and private organizations). This curriculum concentrates on the advancement of children's social skills in the areas of empathy, impulse control, problem solving, and anger management. This program underlines empirical theoretical foundations that provide support for reducing aggression and promoting social competence (e.g., empathy, impulse control, problem solving, and anger management). This fact is based on research suggesting that poor development of skills in these areas are seen as contributing risk factors for future violent behavior (Frey & Sylvester, 1997), thus, focusing intervention efforts on improving preschoolers' social and emotional abilities should take precedence, according to the creators of Second Step (Committee for Children, 1992). Needless to say, children already exhibiting

behavior problems, and in need of more intensive behavioral interventions, will certainly benefit from participating in universal prevention programs. These provide the opportunity to observe more competent children use prevention/intervention skills targeted in the program (Frey et al., 2000).

Theoretical Framework of the Second Step Curriculum

While the theoretical framework of Second Step violence prevention curriculum is primarily grounded in social learning theory (Bandura, 1986) it also draws from other theories including social information-processing (Dodge, Pettit, McClaskey, & Brown, 1986), cognitive-behavioral theory (Kendal & Braswell, 1985), and Luria's (1961) model of self-regulation through verbal mediation. Each of these theories contributes to the rationale for universal and early prevention of aggression. The authors of Second Step (Committee for Children, 1992) describe the areas of empathy, social problem solving, and anger management as essential for intervention and prevention efforts.

Empathy. The creators of Second Step describe competence in the area of social-emotional and social cognitive development as the ability to understand and appropriately respond to others' feelings. This is closely linked with the concept of empathy, which is defined as the capacity to experience and share the emotional state of another (Feshbach & Feshbach, 1987; Eisenberg, 1986). Empathy is an important skill for children to develop as it has been shown to predict prosocial classroom behaviors, such as compassion, generosity, and cooperation, and it is negatively correlated with aggression (Feshbach & Feshbach, 1987; Miller & Eisenberg, 1988). It is typical for children with aggressive tendencies to misinterpret the intentions of others and to lack the

ability to look at a situation from another person's perspective. Therefore, an unintentional act may be viewed as provocation for an aggressive response due to this inability to accurately read and interpret social cues and the meaning behind others' behaviors.

Social problem solving. The authors of Second Step assert that children with a tendency toward aggressive behavior typically show deficits in the area of social problem solving. These children often generate more aggressive and inappropriate reactions to social problems than children who are not considered aggressive (Rubin, Beam, & Rose-Krasnor, 1991). They also typically expect that aggressive solutions to social situations will result in the most positive and acceptable outcomes for themselves (Crick & Ladd, 1990). Aggressive children often ignore social cues and make assumptions regarding hostile intent in situations where most children interpret the meaning as ambiguous. In addition, children with aggressive tendencies are lacking in the behavioral skills needed to achieve appropriate responses in problem situations (Dodge et al., 1985). Interestingly, children who are targets of aggressive behavior on a frequent basis are likely to display markedly similar deficiencies in their ability to resolve conflicts.

Anger management. After a review of the literature, the authors of Second Step emphasize that emotions play a large role in the relationship between cognition and aggressive behavior. Children who are able to control their emotions are less likely to be aggressive than children who are deficient in this area (Underwood, Coie, & Herbsman, 1992). These children are also more likely

to behave in socially competent ways when compared to peers who lack emotional control. Therefore, it follows that anger management techniques would be employed with violence prevention programs that are focusing on problem solving and behavioral skill development.

Examination of the Effectiveness of Second Step Violence Prevention Curriculum

The most comprehensive evaluation of the Second Step program was conducted by Grossman, Neckerman, Koepsell, Liu, Asher, Beland, Frey & Rivara (1997). Grossman and colleagues analyzed the implementation of this curriculum in elementary school children to assess the extent of reduction in children's aggression as well as the increase in prosocial behavior.

Twelve schools from both urban and suburban areas were paired with similar schools and half of the schools were randomly assigned to implement the Second Step program. Classroom teachers taught the curriculum from the program twice a week during a 4-5 month period and data were collected three times: (1) in the fall, prior to the start of the Second Step lessons in intervention schools, (2) in the spring, 2 weeks after the completion of the curriculum, and (3) the following fall, 6 months after the completion of the curriculum. The data consisted of teacher and parent ratings as well as direct behavioral observations by trained observers. The observers recorded physical and verbal aggression as well as neutral and prosocial behaviors. The observations suggested that the greatest reduction in physical aggression were found in the environments that were the least structured (e.g., playground and lunchroom). Friendly behaviors and neutral interactions increased in the intervention classrooms but not in the

control classrooms. The results were maintained at the six-month follow up data collection as well. These results offered promising evidence that use of Second Step reduces children's aggressive behaviors and increases prosocial behaviors.

In spite of these promising observational results, the ratings completed by the teachers did not differ significantly between intervention and control subjects. This is surprising in light of the improvements noted in the observations. Therefore, Grossman and colleagues (1997) identified as one limitation of the program the fact that teachers were inadequately trained to observe their children in the same manner that the outside observers used. Additionally, differences might not have been noted because teachers were not well acquainted and trained with the curriculum. Similarly, the instruments utilized in this study may not have been sensitive enough to detect differences in children's behavior at each of the data collection periods.

Mc Mahon and colleagues (2000) conducted a similar study examining preschool and Kindergarten children of minority and low socioeconomic status (McMahon, Washburn, Felix, Yakin, & Childrey, 2000). Results indicated that both preschool and Kindergarten children exhibited gains in knowledge and decreases in problem behaviors. Interestingly, this study encountered the same finding as the Grossman and colleagues' study (1997) in that both teachers and parents' ratings did not change significantly across time.

Purpose of the Present Study

The purpose of this study is to examine 4 year-old Head Start children's social cognitions and social competence before and after participating in the Second Step Violence Prevention Curriculum, Second Edition. The intervention

aims to promote the acquisition of social and emotional skills in preschoolers as well as to decrease problem behavior that may lead to aggression and later in life to violence. The Second Step Violence Prevention Curriculum (Committee for Children, 1988) was implemented in five Head Start sites in North Central Florida. This project will provide empirical evidence of the effectiveness of a universal violence prevention curriculum while addressing the limitations of prior studies in this area. Current research in the Second Step program has been mostly limited to elementary and secondary school children, and preschool and Kindergarten children of minority and low SES status. This study will expand the current knowledge in this area by: (1) examining the relationship between children variables (language ability, social competency, social cognitions, ethnicity and gender) and intervention outcomes, including social cognitions (i.e., emotion knowledge, social perspective taking, social problem solving) and social competence; (2) examining the relationship between teacher variables (i.e., age, years of experience and education) and intervention outcome; and (3) evaluating the outcomes of the Second Step Curriculum by using rating scales and interviews that will examine the constructs represented in the program as well as to serve as controls (e.g., empathy, impulse control and problem solving). The rating scales to be used include the Preschool Language Scale – 4 (PLS-4; Zimmerman, Steiner, & Pond, 2003), the Social Skills Rating System (Gresham & Elliot, 1990) and the Early Screening Inventory – Revised (ESI-R; Meisels, Marsden, Wiske, & Henderson, 1997). Finally, this study will monitor treatment

fidelity by conducting monthly observations of the lessons implemented following the evaluation form provided in the Second Step manual.

Specifically, the following research questions guide this study:

- a. What are the effects of child characteristics when using the Second Step Curriculum on Head Start children's social competence?
- b. What are the effects of child characteristics when using the Second Step Curriculum on Head Start children's social cognitions?
- c. What is the relationship between teacher's characteristics (age, years of education, years in current position, and years of experience with the Second Step Curriculum) and children's outcomes (social competence and social cognitions)?

CHAPTER 2 METHODS

Participants

Sixty-four children aged three to five years old, from five Head Start classrooms in Alachua County, Florida, served as participants for the study. Head Start administrators assisted with site recruitment by approaching teachers and asking them to participate. A total of 5 teachers agreed to participate.

Child participants were recruited from the 5 classrooms. Parental consent forms were sent home with all children; in addition the principal investigator attended a parent open-house to attempt to recruit children whose parents had not returned the consent forms. Each classroom had approximately 15 – 20 students. (The number of students varied over the course of the academic year.) The total number of participants at the beginning of the study included 64 children and 5 teachers. Three children moved out of the county during the 2003-2004 school-year, resulting in a sample size of 61 children. Of the 64 children, 53.1 were males and 46.9 were females. In terms of ethnicity, the majority were African American (56.3%), followed by European American (46.9%), with few Hispanics (4.7%) and Asians (1.6%). Due to the small number of Hispanic and Asian children, this independent variable was reduced to a two-level variable including minority and European-Americans for the purpose of the regression analysis. Mean of children's ages (in months) was 51.88 (SD= 5.96). Of the 5 teachers included in the sample, all were females, ranging in age from 42 to 50

years of age with a mean age of 44.4 years (SD= 3.28). In terms of ethnicity, of the 5 teachers, 4 were European American (80%) and one was African American (20%). All teachers in the sample had attained a high school diploma and 4 had obtained a Child Development Associates Degree. All teachers were experienced, with years of teaching experience ranging from 14 to 22 with a mean of 19 years (SD= 3), while mean years in current position was 18.2 (SD=2.48). All teachers reported having training and 3 years of experience with the Second Step Violence Prevention Curriculum.

Recruitment

All children in each of the five classrooms were invited to participate in the study and their parent(s) or guardian(s) were approached and asked for their consent for their child's participation in the research study at the beginning of the school year after obtaining IRB approval for the study. Parents or guardians were approached at the welcome back meeting held at the beginning of the school year. During this meeting parents were provided with information about the research study and, in particular, about the use of the Second Step Violence Prevention Curriculum in the classrooms. Families who did not attend the welcome back meeting were approached during child drop-off /pick-up at school and were given (or sent home) a package containing information on the research project, as well as a consent form. Consent was obtained from all participants prior to the implementation of any phases of the project. Children's demographic information was obtained via examination of the classroom cumulative folders.

Procedure

Intervention

The Second Step Violence Prevention Curriculum, 2nd Edition (Committee for Children, 2002; Second Step) was used as the intervention for this study. Second Step is a mandated curriculum for all Head Start classrooms in the county in which the study was conducted; district policy requires daily administration. The curriculum was administered in the manner prescribed in the Second Step manual. Specifically, large group lessons were administered to every student in all classrooms on a daily basis with the goal of helping them learn prosocial skills and decreasing the likelihood of problem behaviors.

This curriculum has three main units (i.e., empathy training, emotion management, and problem solving) that are taught sequentially, as each lesson builds upon skills presented in previous ones. Each lesson at the preschool/Kindergarten level is presented in an 8 ½" by 11" photograph that tells a story about a particular social situation with discussion questions. The lesson is scripted in nature and covers the following sections: warm-up, story and discussion, developing skills steps, role-play and/or activity, and wrap-up to summarize the lesson. At the preschool/Kindergarten level, the lessons take approximately 20-30 minutes. Head Start teachers taught 1-2 lessons per week depending on their beliefs about the children's mastery of the lessons.

In addition to the initial training provided to all teachers, consultative support was available from the investigator as described in the following section.

Training and Consultation Intervention

To increase fidelity of treatment, teachers at each site received a one-day training workshop presented by the investigator regarding the successful implementation of the Second Step curriculum, with particular emphasis on the changes observed in the newest edition (i.e., Second Edition). The principal investigator for this research project attended the Second Step Staff Training and Training for Trainers workshops offered by the Committee for Children, and is nationally certified. The training provided teachers with tools on how to monitor their behavior in the classroom and data collection techniques were taught to encourage teachers to focus on positive, prosocial behaviors that children perform. Collaboration between classroom teachers and the trainer was encouraged. Finally, the trainer visited each of the classrooms on a monthly basis to monitor intervention implementation and fidelity of treatment (Second Step Manual provides a checklist to monitor and evaluate intervention implementation; see Appendix for the observation form). In addition, because the principal investigator had other professional responsibilities related to Head Start, she was available to the teachers in the study for consultation as needed.

Data Collection

In order to address all the research questions, pre- and post- intervention data were collected. Pre-test data included ESI-R, PLS-4, SSRS, and the ECSCI. The ESI-R is administered to all Head Start children by Head Start personnel at the beginning of the school year, in late August and early September. The investigator had access to these data. The PLS-4 and ECSCI were administered to the children in the study by advanced graduate students in school psychology

and speech language pathology in November, 2003. The pre-intervention SSRS was completed by each participating teacher in November, 2003. Post-intervention tests included the SSRS and the ECSCI, both of which were administered in May, 2004. The SSRS was again completed by each child's classroom teacher, and the ECSCI was administered by the principal investigator.

Measures

Child Measures

Three measures were used to examine the effectiveness of the intervention implemented in children's social cognitions and social competence: child interviews and assessments (i.e., social cognitions, overall development, and language assessment), and teacher ratings of children's behaviors.

Early Childhood Social Cognitions Interview (ECSCI). The ECSCI was used as a measure of children's social cognition skills. This semistructured questionnaire is a modified version of the Preschool Interpersonal Problem Solving Test (PIPS; Shure, 1990) designed to evaluate a child's responses to conflictive social situations. Reliability analysis conducted on this measure with SPSS revealed a Cronbach alpha of .80. The ECSCI has three main components or dimensions including: (1) the child's ability to determine the emotional state of another person (emotion knowledge); (2) the child's ability to assume the perspective and role of another person (social perspective taking); and (3) the child's ability to problem solve social situations (Table 2-1 provides a listing of the questions included in the questionnaire). Each interview took approximately 15-20 minutes.

Table 2-1. Questions and Stories Included in the ECSCI

A. The ability to determine the emotional state of another person
1. Part A: Recognize overt expressions of emotions: show child pictures of children and ask how they are feeling. Emotions include happy, sad, angry, surprise, and afraid
1. Part B: Verbalize the cues used to determine emotion: Ask, "How can you tell that the person is _____?" "What about the person's face/body tells you that he/she is feeling _____?"
2. Part A: Recognizes that feelings can change, and why it happens. Say, "When Juan first got to school today, he was crying. His teacher gave him a hug, and he started smiling." a. How did Juan feel when he got to school? b. Why do you think he might have felt _____? c. How did Juan feel after his teacher gave him a hug? d. Why do you think he might have felt _____?
B. The ability to assume the perspective and role of another person
1. Part A: Recognize that different people have different feelings about the same thing: show picture of two children and say, "Jessica loves clowns, but Tyler is afraid of them, Their teacher tells them that their class will be going to a circus, and that there will be lots of clowns there. How do you think Jessica will feel? How do you think Tyler will feel?"
1. Part B: Express care and concern for others: Ask, "How could Jessica help Tyler to feel better?"
C. The ability to problem solve social situations: Show each sheet of pictures to child and say: "This is _____ (name for child A). This is _____ (name for child B). Can you tell me what toy this is? (Picture of toy). Say, "Yes, a _____." "Now, _____ (name for child A) has been playing with this _____ (picture of toy) for a long time and _____ (name for child B) wants a chance to play with it. But _____ (name for child A) keeps on playing with it. What can _____ (name for child B) do so s/he can have a chance to play with the toy?"
"That's one way. Now the idea of this game is to think of lots of ways to get a chance to play with toys, OK? What else could _____ (name for child B) do?"

Each participant was administered the ECSCI by the principal investigator or a trained school psychology student from a local University at pretest and posttest. The questionnaire used pictures of children (both males and females) portraying social situations involving conflict between two children that requires

the participant to identify and label feelings, then provide solutions and potential consequences of particular social situations. In addition, children were asked to think aloud regarding the reasoning behind their choices.

The interviewer began the questionnaire by introducing the participant to the following social scenario: "I would like to learn more about how children your age think about things. I have some pictures that I will show to you to tell you stories about children. I am going to tell you how it begins and you will tell me the rest of the story. I want you to tell me what the child in the picture will do in the story. Let's pretend that the children in the story are your age (the examiner varies the age of the child depending whether the child is three, four, or five years old). Shall we begin?" (adapted from Shure, 1990). The children depicted in the pictures and stories matched the gender and race of the participant.

The examiner proceeded to show pictures of children encountering various emotional states (i.e., sad, happy, angry, surprised, and afraid). The participant was then asked to identify and label the corresponding feeling and to provide an explanation for his or her response. Next, participants heard three stories. For each story, the examiner showed the child some pictures (children and a toy if the story required it). The pictures were presented in an upright format and in the same order. Table 2-1 outlines the three stories children heard.

Participants' verbatim responses were written down by the examiner. Each protocol was then transcribed into an excel sheet that contained children's verbatim responses. This procedure allowed for easier scoring and to perform reliability analyses.

Scoring of the ECSCI. Participants' responses to ECSCI were scored

based on the following criteria:

A. The ability to determine the emotional state of another person

1. Part A: One point was given for labeling the correct emotion (e.g., when participant was presented with picture of a happy child, he or she labeled the emotion as "happy." If child provided wrong label, no points were given for this section (part A or B).

Part B: A maximum of two points were possible for child's ability to verbalize the cues used to determine the emotion. If child verbalized physical attributes as cues for determining feelings (e.g., happy child is smiling, showing teeth, etc.) he or she earned two points for the answer. If child gave only a reason for the feeling (e.g., "happy because her mommy is coming to school") child earned only one point.

2. Part A: A maximum of 4 points were possible for this section: One point for each question assigned in the following manner:
 - i) How did Juan feel when he got to school? 1 point for "sad" or "angry."
 - ii) Why do you think he might have felt that way? 1 point for any logical answer (e.g., he missed his mommy; he did not want to be in school, etc).
 - iii) How did Juan feel after his teacher gave him a hug? 1 point for "happy."
 - iv) Why do you think he might have felt that way? 1 point for any logical answer (e.g., teacher made him feel happy, gave him a hug, etc).

B. The ability to assume the perspective and role of another person

1. People have different feelings: 1 point for identifying any positive feeling associated with Jessica; 1 point for identifying any negative feeling for Tyler; 1 point for identifying a positive way that Jessica could help Tyler to feel better.

C. The ability to problem solve social situations

1. One point for any answer (either positive or negative) that relates what child B can do to get a chance to play with toy that child A is using.

2. One point per answer to participant's ability to identify other options to obtain desired toy.

Inter-rater reliability was estimated by having two raters independently scored 30% of all transcribed protocols (N=38). To determine interrater reliability, the following formula used: $\text{total number of agreements} / \text{total number of agreements} + \text{total number of disagreements}$. Using this formula, inter-rater reliability was calculated to be 92% for total score as well as for each social cognitive skill dimension examined, including emotion knowledge, social perspective taking, and social problem solving. On those items on which there were disagreements, the two raters worked to establish a consensus code.

The Preschool Language Scale –4 (PLS-4). The Preschool Language Scale, Fourth Edition (PLS-4) is an individually administered instrument utilized to examine children's language competence and identify those who have a disorder or delay. This instrument was designed to be employed with children age birth to 6 years, 11 months. The PLS-4 is arranged in two subscales: auditory comprehension and expressive communication. It yields norm-standardized scores for each subscale as well as for the Total Language Score.

The PLS-4 was used to evaluate each child's language ability at pretest, and only the Total Language Score was used in this project. The PLS-4 was initially published in 1969, and since then has had three revisions, the first in 1979, the second one in 1992, and the current version in 2003 (Zimmerman, Steiner, & Pond, 2003). Length of administration varies according to child's age as well as ability. This test requires the examiner to point to pictures included in the test administration booklet and then to ask the child questions about those

pictures. The PLS-4 does not have time limitations and its administration usually spans for 15-30 minutes.

The PLS-4 was standardized with young children (range of 2 weeks through 6 years, 11 months). A total of 1,564 children were included in the standardization sample, based on the 2000 Census of Population (Zimmerman, Steiner, & Pond, 2003). Psychometric properties of the PLS-4 are included in the manual; reliability evidence for the PLS-4 was estimated using: (a) test-retest reliability (ranged between .82 and .95 for the subscale scores and .90 to .97 for the Total Language Score);(b) internal consistency (coefficient alpha =.86 for Auditory Subscale, $\alpha = .91$ for Expressive Subscale, and $\alpha = .93$ for the Total language Score); and (c) inter-rater reliability (99% of agreement). The PLS-4 provides extensive validity evidence in the test manual to support its interpretation and uses (these sources of evidence include test content, response process, internal structure, relationship with other variables, and consequences).

Early Screening Inventory- Revised (ESI-R). The Early Screening Inventory- Revised (ESI-R) is an individually administered developmental screening inventory available in two versions (i.e., ESI-P for preschool children ages 3 to 4.5; and the ESI-K for Kindergarten children ages 4.6 to 6 years) to identify “the possibility of a learning or handicapping condition that might affect a child’s overall potential for success in school” (examiner’s manual, p. 2). The ESI-R has been developed based on child development in the areas of Visual-Motor/Adaptive, Language and Cognition, and Gross Motor.

The ESI-R was used to evaluate each child's overall development at pretest, and the total score from the three areas mentioned above was used in this project. Head Start personnel evaluated every child in the classroom and obtained this score. The ESI-R was initially published in 1976 and revised in 1997 (Meisels, Marsden, Wiske, & Henderson, 1997). This screening instrument requires the examiner to have the child perform various tasks to assess his or her development. The ESI-R does not have time limitations and its administration generally spans for 15 to 20 minutes.

The ESI-R was standardized with young children ages 3 to 6 years. A total of 6,000 children were included in the normative sample, based on the 1980 Census of the Population ((Meisels, Marsden, Wiske, & Henderson, 1997). Psychometric properties of the ESI-R are included in the manual; there is high evidence of interrater reliability which were in the .97-.99 range. Test-retest correlations ranged from .68 to .98. Validity information comes from correlations between the ESI-R and the General Cognitive Index (CGI) of the McCarthy Scales of Children's abilities ($r = .73$).

Social Skills Rating System (SSRS). Teachers participating in the Second Step Violence Prevention Curriculum were asked to complete the preschool form of the Social Skills Rating System (SSRS; Gresham & Elliott, 1990) before and after the intervention was implemented. The SSRS is a nationally standardized series of questionnaires used to obtain information on the social behaviors of children and adolescents from teachers, parents, and the students themselves. It was standardized in the spring of 1988 with a total sample size of 4,170 children,

ages 3 to 18, including 1,027 parents and 259 teachers, and based on the 1988 U.S. census data 1990 estimates). Psychometric properties of the SSRS are included in the manual; there is high evidence of internal reliability for the Social Skills Scale for the Preschool-level and Elementary-level teacher Forms, with coefficient alpha reliabilities of .94. Test-retest correlations are .85 for the Social Skills Scale at the elementary-level. A series of studies have been conducted with the SSRS to examine its validity in terms of content, social, and criterion-related (Grasham & Elliot, 1990). Criterion validity information comes from correlations between the SSRS Teacher Form (elementary-level) and the Social Behavior Assessment (SBA; Stephens, 1978), the Child Behavior Checklist (CBCL; Achenbach & Edelbrock, 1983), and the Harter Teacher Rating Scale (TRS; Harter, 1985) with moderate to high correlations reported in all three measures. The SSRS Preschool level, teacher form, has a coefficient Alpha of .94; the Problem Behavior scale has a coefficient Alpha of .82.

Teacher Measures

Five Head Start teachers were contacted following confirmation from Head Start administrators and School Principals, requesting their consent to participate in this research study. Once teacher consent was been obtained, demographic information was collected, including age, sex, years of education, teaching experience, years of experience with the Second Step Curriculum, and number of years working at the current site.

Behavioral observations of teachers teaching the Second Step lesson were conducted monthly using the Observation Checklist included developed by Committee for Children, the creators of Second Step Violence Prevention

Curriculum, and incorporated in the trainers' manual. Due to the fact that the investigator had limited ability to observe transfer of learning throughout the day, the last 6 items of the Observation Checklist that deal with generalization were not included in the analyses. This monthly observation lasted approximately 30 minutes and included the first 29 items of the checklist. The items were converted into a Likert-type scale with scores ranging from 3-1 (i.e., clearly evident or observed to 1 for not evident or observed). Therefore total scores on the Observation Checklist ranged from 29 to 87 points. See Appendix for an outline of the teacher observation form.

Research Questions and Data Analysis

The following research questions guided this study:

1. What are the effects of child characteristics when using the Second Step Curriculum on Head Start children's social competence?

A regression analysis was conducted to examine the degree of association between outcome variable (i.e., posttests scores on the SSRS) and explanatory variables, including pretest scores on the SSRS, pretest scores on the ESI-R, gender, ethnicity, and pretest scores on language ability. Instruments and procedures to address this question are summarized in Table 2.2.

2. What are the effects of child characteristics when using the Second Step Curriculum on Head Start children's social cognitions?

A regression analysis was conducted to examine the degree of association between outcome variable (i.e., posttests scores on the ECSCI) and explanatory variables, including pretest scores on the ECSCI, pretest scores on the ESI-R, gender, ethnicity, and pretest scores on language ability.

3. What is the relationship between teacher's characteristics (age, years of education, and years of experience) and children's outcomes (social competence and social cognitions)?

Analyses of Covariance were conducted to examine the degree of association between the teacher's explanatory variables (teacher's age, , number of years of education and experience, and number of years in current position) and children's outcomes variables (posttest scores on SSRS and ECSCI).

Table 2-2. Summary of Measures and Procedures for Research Question One

Predictor Variables	Instrument	Date of administration
Demographic: gender, ethnicity	School records	11/03
Developmental Status	ESI-R	8/03 & 9/03
Language ability	PLS-4	11/03
Social skills prior to intervention	SSRS	11/03
Outcome Variable	Instrument	Date of Administration
Social skills after intervention	SSRS	5/04

Table 2-3. Summary of Measures and Procedures for Research Question Two

Predictor Variables	Instrument	Date of administration
Demographic: gender, ethnicity	School records	11/03
Developmental Status	ESI-R	8/03 & 9/03
Language ability	PLS-4	11/03
Social cognitions prior to intervention	ECSCI	11/03
Outcome Variable	Instrument	Date of Administration
Social cognitions after intervention	ECSCI	5/04

Table 2-4: Summary of Measures and Procedures for Research Question Three

Predictor Variables	Instrument	Date of administration
Demographic: age, years of education, and years of experience	Interview	11/03
Outcome Variable	Instrument	Date of Administration
Children's social competence after intervention	SSRS	5/04
Children's social cognitions after intervention	ECSCI	5/04

The omnibus hypothesis was tested at $\alpha = .05$. The assumptions of linearity, homogeneity and normality were examined in the scatterplots and by statistical analysis, including Cook's distance, Durbin Watson, and Studentized residual.

CHAPTER 3 RESULTS

The purpose of this study was to investigate the effectiveness of the Second Step Violence Prevention Curriculum (Committee for Children, 1988) on Head Start Children's social cognitions and social competence. In particular, this study examined the relationships between child variables (language ability, overall development, social competency, social cognition, ethnicity, and gender) and teacher variables (i.e., age, years of experience and education) and intervention outcomes, including social cognitions (i.e., emotion knowledge, social perspective taking, social problem solving) and social competence.

This chapter begins with the descriptive statistics for the measures used in the study and the results of the SSPS Regression and Ancova analyses used to test the hypotheses. The chapter concludes with a summary of major findings.

Descriptive Statistics

Table 3-1 displays descriptive statistics for the measures used in the study. As Table 3-1 shows, overall performance on norm-referenced measures (i.e., SSRS, and PLS-4) was within the average range for the sample (i.e., average range includes any scores falling between 85-115). In addition, an examination of pretest and posttest scores on the SSRS and the ECSCI shows that these scores increased at posttest. Both the Early Screening Inventory (ESI-R) and the Early Childhood Social Cognitions Interview (ECSCI) yielded raw scores that were used in the analysis.

Table 3-1. Descriptive Statistics of Instruments used in the Analysis

Instrument	Mean	SD
Preschool Language Scales, 4 th Edition (PLS-4)*	96.06	13.14
Early Screening Inventory (ESI-R)	20.47	4.05
Pretest Social Skills Rating System (SSRS)*	96.25	19.34
Posttest Social Skills Rating System (SSRS)*	108.67	17.80
Pretest Early Childhood Social Cognitions Interview (ECSCI)	14.24	4.99
Posttest Early Childhood Social Cognitions Interview (ECSCI)	20.47	3.57

Note= PLS-4 and ESI-R were administered once at the beginning of the study

* M= 100, SD= 15

Treatment

Pretests included the Preschool Language Scales, 4th Edition (PLS-4), the Social Skills Rating Scales (SSRS), the Early Screening Inventory, Revised (ESI-R), and the Early Childhood Social Cognitions Interview (ECSCI). Posttests measures included the SSRS and ECSCI. All children in the study took part of the class-wide implementation of the Second Step Violence Prevention Curriculum as required by Head Start. Norm-standardized pretest measures, including the PLS-4 and the SSRS were administered early in the fall of 2003 (i.e., November) while posttest measures were administered during the spring of 2004 or end of the school year (i.e., May). The ESI-R was administered by Head Start personnel at the beginning of the 2003 school year (i.e., August-September).

Hypothesis Testing

The following research hypotheses were tested for the effects of the Second Step Violence Prevention Curriculum on children's social competence and social cognitions while controlling for socioeconomic status (SES):

Null Hypothesis 1. There are no significant differences between the outcome variable (i.e., posttest score on social competence) and explanatory variables (i.e., pretest scores on social competence, pretest scores on the ESI-R, gender, ethnicity, and pretest scores on language ability) as assessed by a standard multiple regression analysis at the .05 level of significance (alpha).

Null Hypothesis 2. There are significant differences between the outcome variable (i.e., posttest score on social cognitions) and explanatory variables (i.e., pretest scores on social cognitions, pretest scores on the ESI-R, gender, ethnicity, and pretest scores on language ability) as assessed by a standard multiple regression analysis at the .05 level of significance (alpha).

Null Hypothesis 3. There are no significant differences between children's outcome variables (i.e., posttest score on social cognitions and social competence) and explanatory variables (i.e., teacher characteristics including age, years of education, and years of experience) as assessed by an analysis of covariance statistical procedure at the .05 level of significance (alpha).

Bivariate Correlations

To examine the relationships among the variables of interest (i.e., language ability [i.e., PLS-4], social competence [i.e., pretest scores on SSRS], and social cognitions [i.e., pretest scores on ECSCI], gender, ethnicity, and overall development [ESI-R]), Pearson Product Moment correlations were calculated. The full correlation matrix can be seen in Table 3-2. As expected language ability was positively correlated with overall development ($r = .433, p < .001$), social competence ($r = .497, p < .001$) and social cognitions ($r = .365, p < .001$). Overall development was positively correlated with age ($r = .247, p = .04$), language

ability ($r = .433, p < .001$), social competence ($r = .441, p < .001$), and social cognitions ($r = .432, p < .001$). Social competence was positively correlated with age ($r = .300, p = .01$), language ability ($r = .497, p < .001$), overall development ($r = .441, p < .001$), and social cognitions ($r = .457, p < .001$). Social cognitions were positively correlated with age ($r = .426, p < .001$), language ability ($r = .365, p < .001$), overall development ($r = .432, p < .001$) and social competence ($r = .457, p < .001$). A significant correlation was found for gender with pretest scores on social competence ($r = -.296, p = .01$) with males demonstrating higher social competence than females. Finally, ethnicity was not significantly correlated with any of the other independent variables.

Table 3-2. Bivariate Correlations of Independent Variables

	PLS-4	ESI-R	SSRS	ECSCI	Age	Gender	Ethnicity
PLS-4	1.00	.433**	.497**	.365**	-.115	-.197	.216
ESI-R		1.00	.441**	.432**	.247*	-.117	.054
SSRS			1.00	.457**	.300*	-.296*	.185
ECSI				1.00	.426**	-.200	.183
Age					1.00	-.218	.109
Gender						1.00	-.081
Ethnicity							1.00

* Correlation is significant at .05 level

** Correlation is significant at .001 level

Multiple Regression Analysis

Standard multiple regression analyses were performed between the outcome variables (i.e., social competence and social cognitions) and the explanatory variables (children's and teacher's characteristics). The analyses were performed using SPSS Regression. The assumptions of independence, equal variances, linearity, and conditional normality were met for the independent variables based on examination of normal probability plots of residual and scatter

diagrams of residuals versus predicted residuals. No violations of normality, linearity, or homoscedasticity of residuals were detected. Therefore, the use of a multiple regression was determined to be appropriate to test for predictors of children's social competence and social cognitions after participating in the Second Step Violence Prevention Curriculum.

Null Hypothesis 1. Null hypothesis 1 examined the degree of association between outcome variable or posttest scores on children's social competence (i.e., SSRS) and explanatory or predictor variables including pretest scores on children's social competence, overall development (i.e., ESI-R), language ability, gender, and ethnicity (i.e., $\text{Post SSRS} = f(\text{Pre SSRS}, \text{ESI-R}, \text{PLS-4}, \text{gender}, \text{ethnicity})$). Regression analysis revealed that the model significantly predicted social competence after participating in the Second Step Violence Prevention Curriculum, $F(5, 55) = 7.737, < .001$. R^2 for the model was .41, and adjusted R^2 was .36. Table 3-3 displays the unstandardized regression coefficients (B), intercept, and standardized regression coefficients (β) for each variable.

Table 3-3. Summary of Regression Analysis for Variables predicting Children's Social Competence after participating in the Second Step Violence Prevention Curriculum

Variables	B	$SE B$	β	t	p
Pre SSRS	.636	.119	.687	5.32**	.000
ESI-R	-1.503	.521	-.345	-2.885*	.006
Gender	3.796	3.823	.107	.993	.325
Ethnicity	3.702	3.901	.102	.949	.347
PLS-4	5.138E-02	.175	.039	.294	.770

Note. $R^2 = .413$; Adjusted $R^2 = .360$

* $p < .05$

** $p < .001$

In terms of individual relationships between the explanatory variables and posttest social competence, only social competence during pretest ($t = 5.32, p <$

.001) and overall development, or scores on the ESI-R ($t = -2.88, p = .006$) predicted children's social competence after participating in the Second Step Violence Prevention Curriculum.

Null Hypothesis 2. Null hypothesis 2 examined the degree of association between outcome variable or posttest scores on children's social cognition (i.e., ECSCI) and explanatory variables including pretest scores on children's social cognitions, overall development (i.e., ESI-R), language ability, gender, and ethnicity (i.e., $\text{Post ECSCI} = f(\text{Pre ECSCI}, \text{ESI-R}, \text{PLS-4}, \text{gender}, \text{ethnicity})$). Regression analysis revealed that the model significantly predicted social cognition after participating in the Second Step Violence Prevention Curriculum, $F(5, 56) = 16.646, < .001$. R^2 for the model was .59, and adjusted R^2 was .56. Table 3-4 displays the unstandardized regression coefficients (B), intercept, and standardized regression coefficients (β) for each variable.

In terms of individual relationships between the explanatory variables and posttest social cognitions, only social cognitions during pretest ($t = 6.55, p < .001$) and language ability ($t = 2.53, p = .014$) predicted children's social cognitions after participating in the Second Step Violence Prevention Curriculum.

Table 3-4. Summary of Regression Analysis for Variables predicting Children's Social Cognitions after participating in the Second Step Violence Prevention Curriculum

Variables	B	$SE B$	β	t	p
Pre ECSCI	.460	.070	.646	6.554**	.000
ESI-R	-2.542E-02	.087	-.029	-.291	.772
Gender	.725	.622	.102	1.166	.248
Ethnicity	.720	.646	.098	1.113	.270
PLS-4	6.797E-02	.027	.253	2.533*	.014

Note. $R^2 = .413$; Adjusted $R^2 = .360$

* $p < .05$

** $p < .001$

Analysis of Covariance (ANCOVA)

Analysis of covariance (ANCOVA) was used to compare means on the outcome variable (posttest scores on social cognitions and social competence) adjusted for the influence of a covariate (pretest scores on social cognitions and social competence).

Null Hypothesis 3. Null hypothesis 3 examined the degree of association between outcome variable or posttest scores on children's social cognition (i.e., ECSCI) and social competence and teacher variables including age, years of education, and years of experience when controlling for pretest scores on children's social competence and social cognitions. Analysis of covariance revealed significant group differences in terms of social competence after participating in the Second Step Violence Prevention Curriculum based on teacher characteristics, $F(4, 55) = 6.468, < .001$. R^2 for the model was .52, and adjusted R^2 was .47. Table 3-5 displays the results of the ANCOVA and Table 3-7 presents means and standard deviations for the five groups that composed the variable *class*. The model, however, did not predict an increase on children's social cognitions after participating in the Second Step Violence Prevention Curriculum based on teacher characteristics or group differences (i.e., $F(4,56) = 1.403, = .245$. R^2 for the model was .56, and adjusted R^2 was .53 (see Table 3-6 for Summary of Ancova Analysis).

Because teachers did not differ significantly in terms of age, years of education, and experience, to explain class differences, examination of treatment fidelity was deemed important. Following the observation, teachers were given feedback for their performance (Table 3-8 presents teachers' individual scores as

well as mean and standard deviations). The Second Step Violence Prevention Curriculum Lesson Observation Form (see Appendix) was used to examine treatment fidelity. This form was converted into a Likert-type scale with scores ranging from 3-1 (i.e., clearly evident or observed earning the highest score while not evident or observed the lowest score), yielding a maximum total score of 87 points. The Treatment fidelity data revealed small differences among teachers implementation of the Second Step Violence Prevention Curriculum. Visual examination of teachers' ratings of children's social competence during posttest and treatment fidelity suggest that those teachers who received lower scores on treatment fidelity tended to score children's social competence higher after participating in the intervention.

Summary

This study investigated the effectiveness of the Second Step Violence Prevention Curriculum on Head Start children's social cognitions and social competence. The first hypothesis predicted no relationships between social competence and child's characteristics after participation in the Second Step Violence Prevention Curriculum. This hypothesis was rejected since the model was significant in predicting social competence based on prior ratings of social competence prior to the intervention. In addition, the model indicated a significant, negative relationship between overall development and social competence, suggesting that children who earned lower scores on the ESI-R were rated higher at the end of the intervention, or during posttest measures of social competence as a result of the intervention. The second hypothesis predicted no relationships between children's social cognitions and child's

characteristics after participation in the Second Step Violence Prevention Curriculum. This hypothesis was rejected since the model significantly predicted social cognitions based on prior scores on social cognitions measures. In addition, the model also predicted social cognitions based on children's language ability. The third hypothesis predicted no relationships between children's social competence and social cognitions and teacher's characteristics after participation in the Second Step Violence Prevention Curriculum. This hypothesis was rejected since the model did predict social competence based on teacher characteristics, although this was not the case for children's social cognitions. An examination of teacher characteristics (i.e., age, years of education and experience) did not reveal differences among teachers (i.e., similar age and years of education and experience) which suggested that probably treatment fidelity may have been related to differences in teachers' ratings of children's social competence after participation in the Second Step Violence Prevention Curriculum. An examination of treatment fidelity found small differences among curriculum implementation. Teachers who received lower ratings on implementation tended to score higher children's social competence after participation in the Second Step Violence Prevention Curriculum.

Table 3-5. Summary of Ancova Analysis for Teacher Variables predicting Children's Social Competence after participating in the Second Step Violence Prevention Curriculum

Source	<i>DF</i>	<i>Type III SS</i>	<i>Mean Square</i>	<i>F</i>	<i>p</i>
Pre SSRS	1	4210.480	4210.489	26.509	.000**
CLASS	4	4270.786	1067.697	6.468	.000**

Note. $R^2 = .523$; Adjusted $R^2 = .479$

** $p < .001$

Table 3-6. Summary of Ancova Analysis for Teacher Variables predicting Children's Social Cognitions after participating in the Second Step Violence Prevention Curriculum

Source	DF	Type III SS	Mean Square	F	p
Pre ECSCI	1	421.551	421.551	70.268	.000**
CLASS	4	33.679	8.420	1.403	.245

Note. $R^2 = .569$; Adjusted $R^2 = .530$

** $p < .001$

Table 3-7. Mean Scores and Standard Deviations for Classes

Source	Instrument			
	SSRS		ECSCI	
	Pre	Post	Pre	Post
Class 1 (n=14)	94.93(18.1)	101(16.1)	17.43(5.4)	20.86(5)
Class 2 (n=8)	102(15.8)	100.75(10.5)	12.78(5.1)	19.75(3.4)
Class 3 (n=13)	88.54(19.9)	106.15(21.6)	13.31(4.9)	20.15(2.8)
Class 4 (n=12)	91.5(20.9)	104.55(13.4)	12(5.08)	19.83(4.3)
Class 5 (n=15)	104.13(19.2)	125.27(11.2)	14.73(3.2)	21.27(1.8)

Note. Numbers in each cell represent the mean for the group followed by the standard deviation in parenthesis.

Table 3-8. Treatment Fidelity Scores for Each Teacher on Five Lessons

Teacher	Lesson					Mean/SD
	1	2	3	4	5	
1	81	82	84	85	82	83/1.64
2	82	79	84	83	83	82/1.92
3	75	71	75	77	77	75/2.44
4	84	83	83	82	85	83/1.14
5	76	76	80	82	83	79/3.28

Note: Treatment fidelity scores based on a maximum score of 87 points.

CHAPTER 4 DISCUSSION

A number of researchers have investigated the effects of social skills training as an early intervention for children at risk for or already exhibiting aggressive behaviors in the schools (Feil et al., 2002; Frey et al., 2000; Walker et al., 1998). The reasoning behind this research is that children who do not develop prosocial skills early in life, including empathy and social problem solving, are at greater risk of negative outcomes, including academic and behavioral difficulties. This in turn, may lead to a path of aggression and/or violence later in life (Elias et al., 1986; Patterson et al., 1991; Peth-Pierce, 2000; Quiggle et al., 1992; Yoshikawa, 1995). Furthermore, a child's social competence not only influences peer acceptance or rejection, but it is also considered a powerful predictor of school achievement (Wentzel, 1991). A review of the literature emphasizes the fact that early childhood is a critical time in a child's life when various skills are learned and internalized. Therefore, the need for developing age appropriate social and emotional skills during the preschool years is critical. Children who exhibit age appropriate social and emotional competence are ready for school and are likely to demonstrate improved school outcomes including school success, later social and emotional development, and interpersonal relationships (Peth-Pierce, 2000).

A widely used universal violence prevention curriculum used across schools in the United States is the Second Step Violence Prevention Curriculum

(Committee for Children, 1992). This curriculum emphasizes children's acquisition of social skills, especially in the areas of empathy, impulse control, problem solving, and anger management. Most research on this curriculum has been done with elementary and secondary school children (e.g., Grossman et al., 1997), whereas few have focused primarily on preschool and Kindergarten children (e.g., McMahon et al., 2000). A review of research results suggest moderate effectiveness in reducing aggressive behavior in preschool and Kindergarten (McMahon et al., 2000) and elementary school age children (Grossman et al., 1997), as well as an increase in children's prosocial knowledge and skills (McMahon et al., 2000), as measured by behavioral observations of children and child interviews. However, these studies consistently reported no change on children's outcome measures based on parents' or teachers' rating of children's behaviors. The discrepancy observed between behavioral observations and teachers' and parents' ratings of children's behaviors was explained in terms of teachers lacking familiarity or by having limited training with the curriculum (i.e., teachers did not buy-into the program, and thus were less able to detect differences in children's problem behavior prior to and after the intervention).

The purpose of this study was twofold. First, to examine the relationship between Head Start children's characteristics (including their overall development, language ability, social cognitions, social competence, gender, and ethnicity) and intervention outcomes (including social cognitions and social competence) before and after participating in the Second Step Violence

Prevention Curriculum. The second goal was to examine the relationship between teacher's characteristics (gender, age, years of education and years of experience) and intervention outcomes (including children's social cognitions and social competence) after participating in the Second Step Violence Prevention Curriculum. Treatment fidelity (i.e., teachers' observations of lesson implementation) was also examined across classrooms.

Findings from this study suggest that (1) of all the children's characteristics examined during this study, children's social competence (i.e., their pretest scores on the Social Skills Rating System, SSRS, Gresham & Elliot, 1990) and overall development (i.e., their scores on the ESI-R) prior to the implementation of the Second Step Violence Prevention Curriculum predicted children's social competence following implementation of the intervention; (2) children's social cognitions (i.e., their pretest scores on the ECSCI) and language ability (i.e., their scores on the PLS-4) predicted an increase in their social cognitions after participating in the Second Step Violence Prevention Curriculum; and (3) teachers' characteristics were significant in identifying group differences in children's social competence following the implementation of the curriculum. However, this was not the case with regards to children's social cognitions. The following sections will expand on these findings, as well as address the limitations of the current study and implications for practice and directions for future research.

Social Competence

Results from this study suggest that young children's social competence, as measured by teachers' ratings (i.e., Social Skills Rating Scales by Gresham &

Elliot, 1990), increased following the implementation of the Second Step Violence Prevention Curriculum. Interestingly, of the various children's characteristics examined (i.e., language ability, social competence, social cognitions, overall development, ethnicity, and gender) only their measured level of overall development and social competence predicted an increase in their social competence after participating in the Second Step Violence Prevention Curriculum. Based on these results, children's initial ratings of social competence (based on teacher ratings) who were rated as delayed in their development (or those who received lower scores on the ESI-R) benefited the most with the intervention. This finding may be explained in terms of a developmental model of antisocial behavior.

Extensive research has been conducted on this model (see Lipsey & Derzon, 1998; Reid & Eddie, 1997; Walker et al., 1998), suggesting that a host of risk factors affecting children and their families may increase the likelihood of negative outcomes later in life including antisocial behavior. Some of the risk factors found to predict negative outcomes later in life include a child (1) whose parent has been incarcerated; (2) has been referred to child protection services; (3) has had one or more life transitions (frequent caregiver, household, or school changes); or (4) has received special education services (e.g., for established conditions, developmental delays, or poor school readiness skills).

Therefore, one possibility is that children whose development appears lagging or behind that of their peers benefited the most with intensive social skills instructions. Walker and colleagues (1998) investigated the effectiveness of the

First Step to Success Early Intervention Program for young, at risk children and found similar findings. They concluded that intensive intervention during the preschool years is a critical component to help young children make successful school adjustments and facilitate interactions with peers and teachers at school.

Findings from the present study are different from those reported in previous studies (e.g., Grossman et al., 1997; McMahon et al., 2000). Of particular interest is the McMahon and colleagues' study since it was conducted with preschool and Kindergarten children using the Second Step Curriculum. Grossman et al., 1997, did not find significant changes in children's social competence before and after the intervention based on teachers' ratings of children's behaviors. However, changes were observed based on observations of children's behaviors conducted by observers blind to the purpose of the study. In their conclusions McMahon and colleagues (2000) hypothesized that possible reasons for the discrepancy between teachers' ratings and blind observer's ratings may be due to the fact that teachers did not recognize or report changes in children's behaviors when completing the rating scales or the fact that teachers' expectations for behavioral changes did not match observed changes. One possible explanation that might account for the different findings between the McMahon and colleague's study (2000) and the present study is the fact that in the present study teachers were provided with feedback following treatment fidelity observations.

Social Cognitions

Results from this study reveal significant improvements in children's social cognitions after participating in the Second Step Violence Prevention Curriculum,

and corroborates previous findings (see McMahon et al., 2000). However, this study found that of all the children's characteristics examined (including their overall development, language ability, social cognitions, social competence, gender, and ethnicity) only their language abilities (as measured by the Preschool Language Scales, 4th edition) as well as their initial measures of social cognitions predicted their increase in social cognitions. Earlier studies of the effectiveness of the Second Step Violence Prevention Curriculum with young children (McMahon et al., 2000) did not examine the effect language skills have on children's social cognitions. Children's language abilities is an important variable to examine considering that the Second Step curriculum heavily emphasizes language skills in everyday social situations (i.e., identifying and labeling feelings, social problem solving strategies, and anger management). In the present study, the examination of the correlations between language ability and measures of social cognitions during pre- and posttests revealed higher correlations between language ability and posttest measures of social cognitions, suggesting that as children get older, the language requirements for social cognitive tasks become increasingly more important. As Goldstein and Goods (2002) adequately emphasize, language is a critical skill in school and social settings, as it is the primary vehicle for learning and establishing successful social interactions. Furthermore, a body of research has highlighted the predictive role of language in later academic achievement and school success (Brown & Dunn, 1996; Walker, Greenwood, Hart, & Carta, 1994).

Teachers' Characteristics

Results from this study suggest differences between teachers' characteristics (i.e., age, years of education and experience) and their ratings of children's social competence after participating in the Second Step Violence Prevention Curriculum. However, an examination of individual teacher characteristics did not reveal differences among them in terms of demographic variables (age, years of education, and experience). Although treatment fidelity was not intended to be used as an explanatory variable when examining teachers' characteristics on intervention outcome, its examination was deemed necessary due to differences found among teachers' ratings of children's social competence after participating in the Second Step Violence Prevention Curriculum. However, a closer look at teachers' mean for treatment fidelity revealed only small differences in curriculum implementation. Therefore, the manner in which teachers taught the lessons as measured by the treatment fidelity observation form does not provide evidence for differences observed in their ratings of children's social competence. It may be hypothesized that random variation (not measured by the current study) may explain teachers' ratings of children's social competence.

Limitations of the Current Study

Although this study has several significant findings, its limitations also must be considered. Threats to validity, including internal and external (Cook & Campbell, 1979), can negatively impact the utility of research findings. A study has internal validity when (1) we can confidently state that the manipulation of the independent variable causes a change in the dependent variable across groups;

and (2) we can rule out the effect confounding variables may have had on the outcome variable (Zechmeister, Zechmeister, & Shaughnessy, 2001). External validity, on the other hand, refers to the extent in which findings from the study can be “generalized to individuals, settings, and conditions beyond the scope of the specific study” (Zechmeister, Zechmeister, & Shaughnessy, 2001, p. 161).

This study may have been limited by threats to internal validity, especially by the effect of maturation. Maturation refers to the naturally occurring changes over time. Thus, maturational changes may explain changes observed on the dependent variable. To deal with this threat studies may include a control group that serves as a comparison and does not receive the intervention as well as by obtaining pre- and posttest measures from participants in both the intervention and comparison groups. This study was limited in its ability to include a control group since all Head Start classrooms in Alachua County are required to use the Second Step Violence Prevention Curriculum; therefore, the identification of a comparable control group without having the potential threat of contamination effect would not be possible (Zechmeister, Zechmeister, & Shaughnessy, 2001). Finally, this study may have also been limited due to threats to external validity (i.e., results may not be generalized to other situations or individuals beyond those involved in the study). In particular, this study was narrow in scope as it was conducted in only one county in North Central Florida. In addition, only a small number of Head Start children and teachers participated. Thus, generalizations may be applicable only to other comparable samples of Head Start children from similar geographic and socioeconomic backgrounds. In

addition, all 5 teachers who participated in the study volunteered to participate; although it cannot be concluded by this study, differences may exist in the manner in which the curriculum is implemented by teachers who chose not to participate in this study. Finally, the lack of variability in terms of ethnicity among the children may also limit external validity. Of the 64 children, 56 percent were of African American background and 37 percent were of European American background (the four remaining children included one of Asian background and three of Hispanic background). For the purpose of the regression analysis, this ethnic variable was regrouped into two levels including minority (i.e., African American, Asian, and Hispanic) and non-minority status (i.e., European American). Furthermore, the lack of variability among the five teachers who volunteered to participate with regards to age, level of education, and experience may have limited the ability to detect differences among intervention implementation.

Finally, this study was limited in its ability to provide information on children's social behaviors and interactions with others through behavioral observations. Furthermore, there was limited ability to observe transfer of learning on a regular basis, and beyond the scope of lesson implementation. Treatment fidelity was conducted across classrooms for approximately 30-45 minutes, while teachers were teaching a lesson. Unfortunately, this amount devoted to treatment fidelity did not allow for observations throughout the day to observe transfer of learning at various times, which was beyond the scope of this study. Furthermore, the Early Childhood Social Cognitions Interview (ECSCI) is a

new instrument. Although information gathered on reliability supports its use in this study, additional research needs to be conducted to support it as a reliable and valid measure.

Implications for Practice

Results from this study indicate that Head Start children responded positively to a universal primary prevention effort being implemented in Head Start classrooms in Alachua County, Florida. In particular, results from this study suggest that Head Start children benefited from a social skills curriculum (i.e., Second Step Violence Prevention Curriculum) that emphasized the acquisition of social emotional skills (including empathy, social problem solving, and anger management techniques) that are likely to facilitate the transition to Kindergarten and provide foundational social and emotional competencies that are important for school success (Wentzel, 1991; Wentzel & Wigfield, 1998). This is based on the fact that these social-emotional competencies can be taught to young children and, more importantly, promoting foundational social and emotional skills early in life is considered an important step in preventing later aggression in children (Fray et al., 2000).

Results from this study suggest that the Second Step Violence Prevention Curriculum is effective in increasing Head Start children's' social competence and social cognitions. However, with regards to social competence, this study found that children rated as developmentally at risk benefited the most with the intervention, as rated by their teachers. Furthermore, this study showed gains in children's social cognitions (including competencies such as empathy, social problem solving, and anger management), although only children's language

skills (as measured by the Preschool Language Scales, 4th Edition) predicted changes in children's social cognitions before and after the intervention.

Important implications for practice include the language requirements found in the Second Step Curriculum (e.g., identification and expression of feelings, social problem solving, and anger management). Head Start children with delayed language skills may not benefit as much with this type of intervention considering the language requirements in the curriculum and thus, have greater difficulty learning the concepts taught. This in turn may have the effect of hampering their ability to demonstrate the expected gains in social competence as a result of the curriculum.

Directions for Future Research

To better understand the results found in this study, four areas deserve further examination: first, a closer look at teachers' characteristics, especially how teachers implement social skills curriculum in relation to intervention outcomes (changes observed in children's social competence and problem behavior); second, the effectiveness of the Second Step Curriculum with children who demonstrate speech and language delays ; third, further investigation of the reliability and validity of the Early Childhood Social Cognitions Interview to assess its utility in research, clinical or public arenas; and fourth, investigation of the link between social competence, social cognitions, children's development, and effective transitions to Kindergarten.

Conclusions from this study indicate a significant relationship between teacher characteristics and children's social competence after participation in the Second Step Violence Prevention Curriculum. However, no significant

differences were found among all 5 teachers who participated in the study, suggesting that age, years of education and years of experience did not account for the differences noted by statistical analysis conducted on the data. Treatment fidelity was also examined as a potential influence in this significant finding. However, only a small difference was noted in the manner in which teachers implemented the curriculum. Research in this area suggests that examining teachers' self-reports regarding curriculum implementation and efficacy as well as evaluating teachers' daily teaching practices may provide an important piece of evidence regarding teacher practices and self-perceptions as they relate to curriculum implementation and intervention outcomes (i.e., changes in children's social competence and social cognitions and decrease in problem behaviors). Similarly, frequent behavioral observations of children in structured (i.e., small group activity) versus unstructured (i.e., free play) settings may provide additional information regarding children's use of Second Step social skills strategies throughout the day. Furthermore, comparing children's social competence and social cognitions versus problem behaviors (i.e., aggression) before and after the intervention may provide insightful data regarding curriculum effects.

Results from this study indicated that children's language ability (as measured by the PLS-4) was a significant predictor regarding increases in social cognitions post intervention. Therefore, it is possible that children identified as having language delays may not benefit as much with this type of intervention. Future research is needed in this area to assess the utility of the Second Step curriculum with this population.

The measure used to assess children's social cognitions (i.e., Early Childhood Social Cognitions Interview) proved to be a reliable instrument in examining the constructs targeted in the Second Step Violence Prevention Curriculum (i.e., empathy, social problem solving, and anger management). Therefore, to validate these findings further research to replicate with young children from diverse backgrounds and socioeconomic levels is required.

Finally, research on the social and emotional risk and protective factors that predict early school adjustment (Peth-Pierce, 2002) indicate that young children who are able to transition successfully to Kindergarten need to have a solid foundation in their emotional security and social competence. Peth-Pierce (2000) further states that "a socially and emotionally healthy, school-ready child is essentially one who can make friends, get along with his or her peers, and communicate well with teachers" (p. 1). These skills allow the child to be ready to fully participate in the learning process and establish good relationships with peers and adults. However, research regarding mental health issues of young children from low-income families is limited (Boyd & Lopez, 2002). Results from this study suggest that the Second Step Violence Prevention Curriculum is effective in increasing social competence for children identified as at-risk or as not having the school readiness skills necessary for successful school adjustment. In addition, children's language skills predicted their ability to learn and use the concepts taught in the curriculum (i.e., social cognitions). However, this study was narrow in scope and thus generalization of the results to other preschool children is limited. In light of this, further examination of preschool

children's (from diverse backgrounds, including ethnicity, geographical region, socioeconomic status, etc), responses to intense social skills instructions may provide a deeper understanding of the effects of this type of curricula on their social competence and social cognitions. In addition, following these children as they transition into Kindergarten and beyond into the school system may provide insightful information regarding the relationship between intensive social skills instruction (i.e., Second Step Violence Prevention Curriculum) and school adjustments and success. This follow-up would have the additional benefit of showing how the social and emotional well-being of at-risk children develops over time.

APPENDIX

OBSERVATION FORM FOR LESSON IMPLEMENTATION OF THE SECOND STEP VIOLENCE PREVENTION CURRICULUM

Second Step Lesson Observation Form

This form is for use by trainers or administrators when observing lesson presentations. Lines printed in bold are general statements followed by examples of how teachers might demonstrate that teaching strategy. The boxes on the right correspond to the statement printed in bold.

Unit _____ Lesson Number _____
 Lesson Title _____ Date _____
 Teacher _____ Grade _____

Storytelling and Group Discussion

Maintained interest with good pacing and personalized examples:

- | | Clearly Evident
or Observed | Partially Evident
or Observed | Not Evident
or Observed |
|---|--------------------------------|----------------------------------|----------------------------|
| • Read at a comfortable and grade-appropriate listening pace | [] | [] | [] |
| • Read with a clear reading voice | [] | [] | [] |
| • Used personal examples or anecdotes | [] | [] | [] |
| • Resolved questions being raised without getting bogged down | [] | [] | [] |

Followed lesson outline completely and sequentially:

- | | | | |
|--|-----|-----|-----|
| • Defined key concepts clearly and used terms correctly | [] | [] | [] |
| • Focused on lesson themes and objectives | [] | [] | [] |
| • Checked for comprehension and corrected students who were confused | [] | [] | [] |
| • Related concepts to student experience | [] | [] | [] |
| • Reviewed lesson theme at end of session | [] | [] | [] |

Used empathic and nonjudgmental response with students:

- | | | | |
|--|-----|-----|-----|
| • Used nonjudgmental responses ("That's one idea. What's another?" rather than "Good idea.") | [] | [] | [] |
| • Responded empathically to student-related experience (listened, nodded) | [] | [] | [] |
| • Demonstrated active-listening skills (maintained eye contact, rephrased or repeated students' words) | [] | [] | [] |

Encouraged participation of all students:

- | | | | |
|---|-----|-----|-----|
| • Arranged classroom to include all students | [] | [] | [] |
| • Displayed photo and/or skill steps poster to all students | [] | [] | [] |
| • Called on a variety of students | [] | [] | [] |
| • Waited a bit before calling on someone (occasionally waited for all hands up) | [] | [] | [] |
| • Used a variety of discussion techniques (pair and share, small group) | [] | [] | [] |

IMPLEMENTATION

	Clearly Evident or Observed	Partially Evident or Observed	Not Evident or Observed
Role-Play or Activity			
Guided student-generation of behavioral skill steps:			
• Asked for steps	[]	[]	[]
• Asked for best sequence	[]	[]	[]
• Asked leading questions or suggested steps when students were not forthcoming	[]	[]	[]
Modeled skill steps or concept simply and accurately:			
• Model role-play clearly illustrated theme	[]	[]	[]
• Emotional expression and voice tone was obvious and appropriate	[]	[]	[]
• Teacher modeled positive self-reinforcement	[]	[]	[]
Facilitated student role-play or activity:			
• Gave clear and focused instructions	[]	[]	[]
• Provided coaching and cueing during role-plays or activity	[]	[]	[]
• Had students repeat role-play or activity to clarify key skills or concepts	[]	[]	[]
Guided students in evaluating the role-plays:			
• Referenced steps	[]	[]	[]
• Phrased questions to elicit specific, constructive, informative feedback	[]	[]	[]
• Phrased questions to elicit feedback on delivery quality (voice tone, eye contact)	[]	[]	[]
Overall			
Facilitated transfer of learning:			
• Targeted times, places, or situations when kids might use skills	[]	[]	[]
• When necessary, discussed times when it might not be appropriate or safe to use skill	[]	[]	[]
Appropriately managed student behavior:			
• Cued appropriate behavior by citing positive rules	[]	[]	[]
• Redirected inappropriate responses ("That's one idea. What's another?")	[]	[]	[]
• Used nondisruptive means to stop disruptive behaviors (nonverbal signals)	[]	[]	[]
• If separation was necessary, placed student so participation from a distance was still possible	[]	[]	[]

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BIOGRAPHICAL SKETCH

Maria Wojtalewicz was born in Concepción, Chile, on March 23, 1965. She was raised in Santiago, Chile, where she attended elementary and secondary education at Sagrado Corazon Monjas Inglesas and later college at the Universidad Católica de Chile. She graduated in 1988 with a bachelor's degree in early childhood education. In 1991 Maria moved to the United States of America with her husband Paul Wojtalewicz.

In 1998 Maria received a Master of Education degree from the University of Florida from the Department of Special Education. The following year, Maria entered the school psychology program at the University of Florida. While pursuing the doctoral degree, Maria also worked as a developmental specialist for Early Steps (i.e., infants and toddlers evaluation and intervention program) in North Central Florida. During her graduate studies, Maria was awarded an Alumni Fellowship and participated in a doctoral leadership training grant provided by the Departments of School Psychology and Special Education at the University of Florida. Maria's internship was done at the Multidisciplinary Diagnostic and Training Program (MDTP) at the University of Florida.

After graduation, Maria wants to work in a clinical setting and teach part-time at a college or university level while working towards her licensing hours. Maria and her husband Paul have three children, ages 11, 9, and 5.