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Parenting and Peer Bullying: Parents' and Adolescents' Beliefs,  
Communication, Behavior and Strategies

by

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## PARENTING AND BULLYING

### **Abstract**

Bullying by peers is a serious problem facing Canadian adolescents today. A key social support for adolescents is the support of their parents. While there is considerable information from the parenting literature to indicate that healthy parent-child communication and authoritative-type parenting practices are necessary components for healthy socialization, few studies have examined the unique and relative contributions of specific parenting dimensions (support, behavior control, psychological control) on bullying behavior in adolescents. In this study of 225 boys and girls between the ages of 11 to 13 and one of their parents, the association among parent support, behavior control, psychological control, adolescent behaviour, attitudes, communication skills, and adolescents' involvement in bullying situations was investigated. Model testing indicated a positive relationship between parent support, beliefs that aggression should not be used to solve bullying situations, high levels of communication, and low levels of bullying and victimization, both in self-reports, and in effectiveness of problem-solving in hypothetical bullying situations. Results indicate that warm, supportive parenting influences the way adolescents consult with their parents about how to manage conflict, deal with bullying issues, and identify solutions to interpersonal problems.

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Parenting and Peer Bullying: Parents' and Adolescents'  
Beliefs, Communication, Behavior and Strategies

Bullying by peers is a serious problem facing Canadian adolescents. Significant research attention has been devoted to the prevalence and impact of bullying while the role of parents in supporting their children who have been bullied has been largely ignored (Holt, Kaufman Kantor, & Finkelhor, 2009). Parental involvement in supporting their children is critical to better intervention when children and adolescents experience bullying.

Bullying is typically defined as aggressive behavior involving an imbalance of power with the less-powerful person or group being repeatedly and unfairly attacked (Olweus, 1993). Bullying is commonly categorized according to whether the victim directly or indirectly experiences an attack from an aggressor. Direct bullying includes physical and verbal acts such as pushing, hitting, name-calling, and mocking, while indirect bullying involves manipulation or control of relationships through isolating individuals from peer groups or spreading rumors (Crick & Grotpeter, 1995). Bullying affects children who are involved as well as children who witness others being bullied. These bystanders can experience feelings of vulnerability when observing bullying incidents (Bonds & Stoker, 2000). Bullying has been identified as a significant problem experienced by youth, most commonly in the school environment, such as in classrooms, hallways, playgrounds, or school buses, and more recently has extended to other contexts as a result of students' increased access to technology sources such as the internet and cell phones (Raskauskas & Stoltz, 2007, Shariff & Hoff, 2007).

The theoretical foundations which contribute to an understanding of the link between parenting and school bully involvement include ecological theory (Bronfenbrenner, 1989, 2002), social cognitive theory (Bandura, 1986), and family-based social learning models (Barber, 2002; Baumrind, 1967, 1989). These conceptual frameworks share the view that the environmental contexts in which children are raised have an effect on their developmental outcomes. From an ecological systems perspective (Bronfenbrenner, 1989), bullying must be considered within systems of influence such as the family, the peer group, and the school social system. From a social cognitive theory perspective (Bandura, 1986), self-regulatory beliefs, developed through modeling and reinforcement, play an essential role in motivating and regulating behavior. Through a family-based social learning model, children's behaviors develop within a family context, and parents' child-rearing behaviors serve as a model upon which children base their behavior with others.

Although some studies have reported reduced levels of bullying in schools as a result of school-based interventions, much of the data suggests limited success over time (Pepler, Smith, & Rigby, 2004). A key factor overlooked in such programs is the involvement of parents. Indeed, Smith and Myron-Wilson (1998) argue that the family appears to be a key context, both for understanding the origins of bullying and victimization problems, and for seeking avenues of change and prevention. Social cognitive theory posits that children learn by modeling the behavior of others and through reinforcement of these behaviors (Bandura, 1986). Previous studies examining aspects of parenting that lead to

bullying or victimization suggest bullying and attitudes towards bullying can be learned from or reinforced by parents who model and permit aggressive behavior, and that victimization can be developed in children whose parents display high levels of over-protectiveness and intense closeness (Bowers, Smith, & Binney, 1992, 1994; Ladd & Kochenderfer-Ladd, 1998; Olweus, 1980; Rigby, 1994).

Therefore, although bullying prevention programs call for parental involvement, positive aspects of parental involvement need to be identified and encouraged as some parents may not recognize or acknowledge that aspects of their own behavior may be contributing to the problem of bullying and victimization.

Although most parents express a negative attitude toward bullying, many continue to believe it is an inevitable part of growing up (Eslea & Smith, 2000). For bullying prevention programs to be effective in engaging parents, positive features of parental involvement need to be emphasized to help parents support their children when they encounter bullying.

Craig, Peters, and Konarski (1998) underscore the need to address the influence of family socialization practices on bullying. One of the most influential conceptualizations of family socialization is reflected in the work of Baumrind (1966, 1967, 1968, 1989), who identified three major parenting styles: authoritarian parenting which is recognized by high levels of control and low levels of nurturance; permissive parenting which is identified by high levels of nurturance and low levels of control; and authoritative parenting which is characterized by high levels of control and nurturance. The parenting literature indicates that authoritative-type parenting practices are necessary components of

healthy adolescent socialization (e.g., Steinberg & Silk, 2002). However, despite consistent findings that authoritative parenting is related to healthy adolescent development, few studies have focused on the component dimensions of parenting: support, behavioral control, and psychological control (Barber, 2002). While these dimensions have been aggregated into authoritarian, permissive, and authoritative parenting types, there is a limited body of research examining the relative or unique role of each dimension in the socialization of adolescents. The purpose of this study is to examine the unique and relative influence of each dimension on children's involvement in bullying by testing a theoretically driven model describing parenting dimensions (support, behavioral control, psychological control), children's behavior (adaptive, externalizing, internalizing), family attitudes and communication practices, and problem-solving strategies that may lead to children's involvement in bullying others, being victimized, or supporting victimized children (bystander behavior) during early adolescence.

Even though there is a great deal of anti-bullying material available for parents, teachers and students, it is surprising to discover through a review of the empirical literature that little is known about parents' understanding of bullying and how they can support their children. Children in the junior high years are at particular risk as this is a peak period for bullying (Craig, 2004; Pellegrini & Long, 2002). In addition, parents may be unaware of bullying problems, how to recognize the signs of bullying, and strategies to support their children when they bully others, are bullied themselves, and/or witness bullying. However, there

seems to be few research studies that have investigated what parents know and how parents talk to their children about bullying (Holt et al., 2009). While parents of younger children can be directly involved in their children's social relationships during play situations, parents of adolescents have less opportunity to observe their children in social settings. Consequently, parents of adolescents are left to rely on parent-child conversations to influence peer relationship issues. The parenting literature indicates that open parent-child communication is related to social competence (Steinberg & Silk, 2002). Thus, a further purpose of this study is to assess adolescents' and parents' skills in dealing with bullying through communication practices that help children develop effective problem-solving strategies.

### **Literature Review**

#### **Definitions and Forms of Bullying**

Although some researchers do not distinguish between bullying and aggression, Olweus (1978, 1993) and Rigby (2002, 2005) conceptualize bullying as a subset of aggressive behavior in which bullying involves an imbalance of power with the less-powerful person or group being repeatedly and unfairly attacked physically, verbally or relationally. The imbalance in power can take a variety of forms, including differences in social status, physical strength, or number, with several ganging up against one or a few victims.

Historically, early research on bullying focused on direct, physical forms of aggression; later research considered a wider range of bullying behaviors including forms of aggression that are more covert and aimed at damaging

victims' social relations (Card, Stucky, Sawalani, & Little, 2008). These forms of aggression have been variously referred to as indirect (Lagerspetz, Bjorkqvist, & Peltonen, 1988), relational (Crick & Grotpeter, 1995), and social aggression (Galen & Underwood, 1997); however, there is growing consensus the underlying activities under the three labels are essentially the same (Archer & Coyne, 2005; Card et al., 2008). Direct bullying involves hostile acts that harm others for intimidation purposes or instrumental gains. These acts can involve both physical actions such as pushing, hitting, intimidating, verbally threatening with physical harm, or taking and damaging belongings, and verbal or nonverbal disparagements such as teasing, name-calling, mocking, making sarcastic comments, glaring, rolling eyes, or tossing hair to convey contempt (Hart, Newell, & Olsen, 2003). Indirect bullying involves exclusionary behaviors such as gossiping, spreading rumors, and excluding individuals from group activities and social functions (Crick & Grotpeter, 1995; Underwood, Galen, & Paquette, 2001). Indirect bullying is similar to physical bullying in its intent to inflict harm; however, the nature of the harm is directed at reputation, social standing, and social relationships rather than at physical safety (Hughes, Meehan, & Cavell, 2004). Indirect forms of bullying are much harder for adults to detect and are not always recognizable as bullying (Arora, 1996).

Most students report that bullying occurs most frequently at school, but with the evolution of digital technologies, new opportunities for bullying are available (Ybarra & Mitchell, 2007). Campbell (2005) describes methods of cyberbullying: texting derogatory or threatening messages, pictures, or video clips

on cellphones; sending threatening emails; forwarding confidential emails to all address book contacts, thus publicly humiliating the first sender; creating derogatory websites dedicated to ridiculing targeted students; and participating in chat rooms with participants mocking targeted students or continually excluding individuals from chatrooms. Li (2007) found that few victims of internet harassment reported incidents to adults.

### **Incidence**

Although prevalence rates vary across studies, Canadian statistics suggest 25% to 50% of Canadian adolescents are involved in bullying each year (Craig & McCuaig-Edge, 2008; Leenaars & Rinaldi, 2010; Pepler, Craig, Connolly, Yulie, McMaster & Jiang, 2006; Shariff & Hoff, 2007). In studies examining bullying patterns by age, results suggest bullying peaks in early adolescence and then decreases in frequency (Borg, 1999; Olweus, 1994; Pellegrini & Long, 2002). Eslea and Rees (2001) found that 73% of participants reported being bullied at school at some point, most frequently between the ages of 11 and 13. Children in elementary school are generally bullied more often than students in secondary schools; however, there is a notable increase in reported victimization when children enter the first year of secondary school (Rigby, 1997). The transition to secondary school is a difficult one for many children, accompanied by changes in peer relationships and a shift to an often less-supportive school environment. Moreover, both students and parents report that bullying is a major concern when transitioning from primary to secondary school (Zeedyk et al., 2003). For these

reasons, this study focused on early adolescent students who recently entered secondary school (grades 7 and 8).

Estimates of prevalence rates vary widely among studies, depending on how bullying is defined and measured (Smorti, Menesini, & Smith, 2003), and the time period considered (e.g., school career, the current school year, or the current school term). Differing results may also be a function of differing data collection techniques, be they self-report, parent-report, peer- or teacher-nomination, or a combination thereof, or through naturalistic observation (e.g., Craig & Pepler, 2000; Pepler & Craig, 1995). Few studies have gathered information from parents as to the extent of their children's involvement as bullies or victims. Despite the variability in prevalence rates, research confirms a substantial number of students to be involved in the process of bullying.

In addition to studying overall prevalence, the frequency of different types of bullying behaviors has been investigated. The most commonly reported form of bullying, experienced by boys and girls about equally, is verbal harassment such as teasing and name calling (Pepler et al., 2004). In a sample of 8 to 16 year olds, Whitney and Smith (1993) found half the victims reported being called names, and about one-third of victims reported being physically injured. Other types of bullying that victims reported experiencing include being threatened, having rumors spread, having no one talk to them, and having belongings taken away. Although most of these studies gather data from the victims of bullying, Borg (1999) and Pateraki and Houndoumadi (2001) investigated the frequency of different forms of bullying from the perspective of children who bully. These

studies presented findings suggesting that bullies more often report frequent physical bullying and isolating the victim and victims more often report verbal forms of bullying such as name-calling.

Some empirical evidence indicates that boys are more often bullied physically and threatened by their peers whereas girls are more often the victims of indirect, or relational bullying (Kistner, Counts-Allan, Dunkel, Drew, David-Ferdon, & Lopez, 2010; Pepler et al., 2004). This gender difference is supported by research which suggests that power and dominance are more important for boys and men while intimate relations and affiliation are more important for girls and women (Roland & Idsoe, 2001). Past research on bullying has focused largely on the study of physical aggression. Crick, Bigbee, and Howes (1996) report that boys are more likely to use physical aggression and feel more distressed when they are the victim of physical aggression whereas girls are more likely to use relational aggression and feel more distressed when they are the victim of relational aggression. Although there is evidence that the frequency of overtly aggressive acts is increasing at a faster rate for girls than boys (Loeber, 1990), girls exhibit significantly higher levels of relational aggression than do boys (Crick & Grotpeter, 1995; Vaillancourt & Hymel, 2006). Underwood et al. (2001) argue that girls may hurt others in less physical, less direct ways than do boys, and previous definitions of aggression are limited because they leave out subtle hurtful behaviors that are more characteristic of girls. Crick (2000) asserts that past estimates of prevalence have been biased by the failure to assess forms of

aggression salient to girls. When relational aggression is taken into account, boys and girls are identified as bullies with almost equal frequency.

### **Bullying Subtypes**

Peer aggression and the social dynamics of bullying is complex with children adopting different roles depending on specific situations. While recognizing that labeling children as bullies or victims without considering context places them in superficial categories, past research has generally distinguished among four bullying subtypes: (a) bullies are perpetrators of aggression but do not experience significant victimization by peers; (b) victims are often targets of aggression but are not perpetrators of aggressive acts; (c) bully/victims are both perpetrators and targets of aggressive behavior and may react aggressively to provocation (Holt, Finkelhor, & Kantor, 2007); and (d) bystanders are children who are not directly involved in bullying, but are aware of bullying events, and can affect whether bullying continues or is stopped (Salmivalli, Lagerspetz, Bjorkqvist, Osterman, & Kaukiainen 1996).

**Bullies.** Olweus (1991) describes children who bully as being impulsive, having a strong need to dominate others, and displaying little empathy toward their victims. Children who bully others are more likely to be involved in aggressive, delinquent and violent behavior (Baldry & Farrington, 2000). Batsche and Knoff (1994) purport that children who bully achieve goals through the use of aggression and are unaffected by pain and suffering in others. Dodge (1991) refers to individuals who bully as proactively aggressive and suggests they deliberately use aggression in anticipation of self-serving outcomes. Bullying is associated

with externalizing problems such as physical aggression, hyperactivity, and engaging in property crimes (Craig et al.,1998). Long-term outcomes for children who bully are not good. Olweus (1993) states that compared to their peers, children who bully are more likely to be convicted of crimes in adulthood. Aggressive behavior reinforced in childhood may lead to dating aggression and later extend to workplace harassment, marital, child, and elder abuse in adulthood (Craig & McCuaig Edge, 2008).

**Victims.** In both research and practice, children who are victimized are often portrayed as having a pervasively submissive behavioral style. Craig et al. (1998) found victimization to be associated with both externalizing and internalizing behaviors: Victims display few prosocial behaviors and hyperactivity as well as social anxiety, insecurity, depression, unhappiness, and emotional problems; moreover, they display emotional reactivity and award their attackers by reacting or being submissive. Craig (1998) describes a negative cycle where victims' social anxiety makes them more vulnerable to attack, in turn, leading to repeated victimization which heightens already high levels of social anxiety; Rigby (2002) reports that victimized children report more health problems such as general illness, somatic complaints, anxiety, depression, and suicidal ideation. Batsche and Knoffe (1994) suggest children who are victimized view school as an unsafe place and are likely to exhibit avoidance and withdrawal behaviors such as not going to school, refusing to go certain places within the school setting, and in extreme cases, attempting suicide.

**Bully/Victims.** A caveat to categorizing children into different subtypes as bullies or victims is that they do not always fit into neatly identifiable groups and the same children who are identified as bullies may also report being victimized. When identifying groups using peer or teacher nominations, children who react aggressively to bullying behavior may be categorized as bullies, victims, or both. Mohr (2006) distinguishes between passive and aggressive victims and describes passive victims as exhibiting submissive social behavior. In contrast, aggressive victims have difficulty controlling their emotions during interpersonal conflicts and reward aggressors with highly emotional responses or with exaggerated angry retaliation. While initial research suggested that bullies and victims were mutually exclusive categories, more recently, researchers have recognized the complexity of bullying situations by including a bully/victim subtype (Leff, 2007).

Bully/victims are defined as individuals who are both perpetrators and targets of bullying behavior, and may react aggressively to victimization (Holt et al., 2007). While some researchers categorize these children as bully/victims (Haynie et al., 2001), others refer to them as aggressive victims (Schwartz, Dodge, Pettit, & Bates, 1997) or provocative victims (Olweus, 1978). Although Craig et al. (1998) tested a bullying and victimization model and found the two categories were not related to each other, recent research provides evidence that the bully/victim category is a distinct group. Using discriminant function analysis, Haynie et al. (2001) found distinct groups of bullies, victims, and bully/victims. More than one half of the bullies in this study reported being victims as well. Findings by Veenstra et al. (2005) and Unnever (2005) also support the inclusion

of a bully/victim category. These studies suggest that bully/victims react aggressively to victimization, and retaliate against their peers by engaging in bullying behavior themselves. Research has documented that bully/victims fare more poorly than any other group of children: They tend to be the most stigmatized by their peers (Ireland & Power, 2004); they are characterized by higher rates of problem behavior, depressive symptoms, lower self-control, lower social competence, poorer school functioning (Nansel, Haynie, & Simons-Morton, 2003); they are less able to form positive friendships with peers (Unnever, 2005).

Some researchers have attempted to understand the bully/victim category by differentiating between proactive (or instrumental) and reactive aggression. Pellegrini and Long (2004) define bullies as individuals who use proactive aggression in a deliberate way to secure resources. Bully/victims, on the other hand, are provoked, and use aggression in response to provocation. For example, in response to being bumped in the hallway, a bully/victim may lash out and hit the person who instigated the incident. Reactive aggression is a defensive response to provocation or trouble, a way to defend oneself and to retaliate against abuse whereas proactive aggression requires no stimulus and is a deliberate, hurtful action used to achieve goals (Camodeca & Goosens, 2005).

Little, Henrich, Jones, and Hawley (2003) argue that past research has confounded forms of aggression (direct and indirect) with functions of aggression (proactive and reactive). Their findings suggest that proactive aggression is associated with self-serving strategies of social control and that reactive

aggression is associated with deficits in emotion regulation. Reactive aggression is viewed by peers as indicative of mean and unhelpful intent coupled with a hostile disposition. However, their results suggest functions of aggression are unrelated to perceived victimization suggesting that others do not perceive children who are reacting aggressively to provocation as victims. This research highlights the complexity of the social phenomenon of bullying and whether individuals exhibiting reactive aggression are bullies, victims, or both.

**Bystanders.** Bullying is a group phenomenon in which a variety of players contribute a number of roles, pressures, and influences, either intentionally or unintentionally (O'Connell, Pepler, & Craig, 1999). Some researchers have examined how some children avoid bullying situations, but rather, are prosocial in their interactions with others. Eisenberg, Wentzel and Harris (1998) argue that children with good control over their emotions are more likely to exhibit sympathetic and prosocial behaviors. Nelson and Crick (1999) used the social-information processing model (SIP; see Crick & Dodge, 1994) to investigate social cognitive mechanisms underlying prosocial behavior. In their study they used a peer-nomination procedure to identify a group of prosocial students who were then administered a hypothetical situations instrument to assess their intent attributions, feelings of distress, and response-decision processes. Findings suggest prosocial children possess specific social-cognitive patterns that are likely to support their prosocial nature; they give others the benefit of the doubt, set goals that allow them to maintain positive relationships, and select responses to provocation which ascribe to relatively high moral

standards regarding interpersonal behavior. In addition to these findings, Nelson and Crick found that prosocial children are less distressed than their peers by ambiguous provocation, suggesting emotion regulation plays a significant role in prosocial behavior.

Camodeca and Goossens (2005) also used the SIP model to identify differences among bullies, victims, and bystanders. Employing a peer report measure to identify the various roles children may play in the bullying process, a teacher report measure where teachers were asked to rate each child on different items to test reactive and proactive aggression, and a hypothetical situations measure to test the processing of social information, their study found prosocial children process social information in every step of the SIP model without using aggression. They do not make hostile attributions, and probably as a consequence, do not select antisocial goals, nor do they express anger or sadness. They seem to have a capacity to avoid harassment and to develop an adjusted cognitive and emotional path. Warden and Mackinnon (2003) examined links between social status, empathy and social problem-solving and found that prosocial children are more popular, show greater empathic awareness, a better capacity to respond constructively to socially difficult situations, and more awareness of the possible negative consequences of their actions.

Other researchers have separated the bystander category into a variety of roles, some of whom contribute to bullying behavior, others who stay out of the situation, and yet others who comfort and defend victims. Salmivalli et al. (1996) identified the following participant roles that various bystanders can take in

bullying situations: (a) *assistants* who join in and assist the bully; (b) *reinforcers* who although they do not attack the victim, give positive feedback to the bully, (c) *outsiders* who allow bullying to continue by their tacit approval; and (d) *defenders* who demonstrate antibullying behavior such as comforting victims, taking sides with them, and trying to stop the bullying. Results support the notion that bullying is a group phenomenon in which most children have a definable participant role.

### **Theoretical Framework**

Three influential conceptual frameworks which guided the development of the current study are ecological theory (Bronfenbrenner, 1989, 2002), social cognitive theory (Bandura, 1986; Crick & Dodge, 1994), and family-based social learning models (Barber, 2002; Baumrind, 1967, 1989), all of which share in common the view that experiences in the parent-child context feed into the child-peer context.

**Ecological Systems Theory.** An ecological theoretical framework helps in conceptualizing the many layers to bullying in homes, schools, and communities. According to Bronfenbrenner (1989, 2002), the developing child is embedded in a series of nested environments which both directly and indirectly influence that child. Bronfenbrenner's systems include the microsystem, mesosystem, exosystem, macrosystem, and chronosystem.

The microsystem is the environment (e.g., parent-child and teacher-child relationships) that directly includes the child. Within this environment, the child's status as bully, victim, or bystander, and his or her interaction with others (parents

and peers) can either worsen or lessen bullying and victimization behaviors (Swearer & Espelage, 2004). The mesosystem involves the interactions between two microsystems and involves the connection between the home where interactions are taking place between parents and children, and the school, where children interact with their peers and teachers, and where parents interact with the school system. How parents and teachers work together to socialize children to refrain from bullying is an example of the mesosystem. The mesosystem operates within the third level (exosystem), which typically includes those settings in which the child does not directly participate, but which still exert an indirect effect on the individual child. An example of the exosystem would be how teachers are trained and expected to respond to bullying issues and how a school board develops policies regarding bullying. As the systems expand, the mesosystems and exosystems function within the context of a fourth level known as the macrosystem. This level involves how schools foster a sense of community and how the school and greater community socializes children to engage in or refrain from bullying behavior. The effects of societal attitudes toward bullying have a cascading influence throughout the interactions of the other layers. At the outermost level of the model is the chronosystem which is the consideration of the environmental changes that occur over time and have an effect on the child. Prosocial behavior or antisocial problems such as bullying and victimization develop as a result of not simply individual characteristics in the child, but through the child's environment and through more remote forces in the larger community and society. The present study focused on the microsystem (the

parent-adolescent relationship) and the mesosystem (the adolescent-peer relationship) and how parents help their adolescents manage peer relationships effectively.

The ecological model views a combination of the individual characteristics of the child/adolescent, the actions of parents, peers, educators, along with community and cultural factors to contribute toward bullying and victimization. Olweus (1994) describes individuals who bully as being impulsive, domineering, inflexible, and lacking empathy. Whereas children who are victimized are low in self-competence and self-esteem, children who bully are not (Rigby, 2000). Bullying behavior in children with these characteristics can be developed and reinforced in families which encourage bullying by modeling such behavior and tolerating it when it occurs. Victimization behavior is thought to develop in families with low authoritative parents who tend to give their children few opportunities to speak up for themselves (Smith & Myron-Wilson, 1998). Peers can further provide reinforcement for bullies and victims at school. School routines and policies which provide insufficient levels of adult supervision, physical settings that facilitate bullying behaviors, and policies that discourage prompt and effective responses when bullying occurs can contribute to the development and maintenance of bullying. Societal beliefs that view bullying as an inevitable part of human nature are likely to hinder the development of prevention and intervention strategies to counter bullying behaviors. Thus, in an ecological model, bullying is best conceptualized as involving a combination of characteristics of the individual along with aspects of the family and social

environment which serve to develop and reinforce bullying and victimization behavior.

Appropriately, multi-level approaches to bullying prevention incorporate school-level, classroom-level, and student-level components in targeting and eliminating bullying (Hanish & Guerra, 2000; Pepler, Craig, Ziegler, & Charach, 1994; Whitted & Dupper, 2005). A key element of well-accepted prevention approaches is the involvement of parents as supports. Preliminary evidence shows that parental involvement strongly correlates with the success of bullying prevention programs (Eslea & Smith, 2000). The model in this study is ecologically oriented with experiences in the home context influencing experiences in the social context.

**Social Cognitive Theory.** Many researchers who explore associations between the socialization system of the family and experiences children have with their peers use social cognitive theory as a conceptual model of linkage. Bandura (1986) considers children to be active members in their learning processes and that children develop self-regulatory behavior through modeling and reinforcement. Maccoby (2002) believes that “parents influence the ways in which children interpret the events they experience, and thus influence their subsequent attributions about other people’s intent and their own efficacy” (p. 36). Dodge (2002) proposes that the mechanism through which parenting exerts its influence on child behavior is likely to be the cognitive messages that the child learns about the social world. Dodge suggests the latent cognitive mental representations of the world (variously known as general knowledge structures,

schemas, scripts, working models, and mental representations) that children carry around with them as they approach new situations are acquired through early socialization experiences with parents and serve to guide patterns of future behavior. These theorists suggest that social cognitive theory contributes to an understanding of how parents socialize children.

**Family-based Social Learning Models.** Family-based social learning theory suggests that bullying is a learned response pattern under the influence of modeling and reinforcement by parents. Children who observe certain behaviors are more likely to display such behaviors. Children who are allowed to use aggressive and coercive behavior are more likely to find that such behavior works for them in achieving their goals (Sutton, Smith & Swettenham, 1999). Children whose parents actively teach social skills and are involved in the child's social life are more likely to develop prosocial expectations in their social relationships (Mize & Pettit, 1997).

Parents of children who bully may reinforce aggressive behavior through either harsh punishment practices or inconsistent and permissive practices that do not discourage, or even subtly encourage bullying behavior (Berthold & Hoover, 2000; Underwood, Beron, & Rosen, 2009). Parents of children who are victimized may create a pattern of behavior through inconsistent parenting practices where children interpret peers' intentions as hostile (Dodge, Lochman, Harnish, Bates, & Pettit, 1997). Using the Crick and Dodge (1994) SIP model to understand how aggression develops, individuals acquire beliefs that the use of aggression is a good way to solve problems. In turn, because they perceive aggression as

appropriate, they perceive others' behavior as being like theirs, motivated by hostile intent, leading to a hostile attribution bias when interpreting others' intent (Arsenio & Lemerise, 2004; Zelli, Dodge, Lochman, & Laird, 1999). Dodge (2002) suggests that children develop a schema of hostility partially from interacting with threat in the form of rejecting and physically harsh parenting. Conversely, children learn to become prosocial from interacting with parents who inspire security, confidence, and hope (Pettit, Harris, Bates, & Dodge, 1991).

*Parenting Styles.* One of the most commonly cited frameworks for understanding the impact of parenting on development is Baumrind's (1967) authoritarian, permissive and authoritative parenting styles. Findings from initial studies suggest that parenting style is predictive of certain personality and behavioral outcomes in children (Baumrind, 1966; 1967; 1968). Children of authoritarian parents are described as having a limited sense of responsibility and low levels of self-esteem and academic achievement. Children of permissive parents are inclined to be impulsive, self-centered, easily frustrated, and low in achievement and independence. Conversely, children of authoritative parents tend to be self-confident, achievement oriented, and socially responsible. Studies have consistently shown that children raised in authoritative homes outscore their peers on measures of psychosocial development and prosocial behavior (Gray & Steinberg, 1999; Rinaldi & Howe, in press). Despite the appearance of authoritarian and permissive parenting styles being diametrically opposite, Baumrind (1966) suggested that they hold in common the propensity to minimize opportunities for children to deal adaptively with everyday life challenges.

*Parenting Dimensions.* A wide body of research has consistently shown that authoritative parenting is related to healthy development in children and adolescents. To better understand what underlies parenting styles, Maccoby and Martin (1983) moved away from Baumrind's categorical approach and defined parenting along two dimensions: Demandingness and responsiveness. Parental demandingness is the degree to which parents establish high expectations for their children's behaviors, monitor what their children actually do, and confront children when their behaviors do not meet their expectations; parental responsiveness is the degree to which parents foster individuality and self-assertion by being warm, nurturing, and sensitive to their child's cues. Currently, researchers are shifting toward greater specificity in defining dimensions of parenting that underlie what has been aggregated into parenting styles (Barber, Stolz, & Olsen, 2005). These dimensions are (a) support, (b) psychological control, and (c) behavioral control.

Support refers to affective, nurturant behaviors and is especially relevant to the adolescent's degree of social initiative (Collins, 2005). Fletcher, Steinberg and Williams-Wheeler (2004) provide evidence for the idea that warm, responsive parents who at the same time attempt to actively regulate the child's behavior establish a family climate in which communication is promoted. Soenens, Vansteenkiste, Luyckx, and Goosens (2006) argue that if parents have managed to develop a warm, understanding, and personal relationship with their teens, they create a family climate in which adolescents are more likely to converse openly with their parents. Results from Soenens et al. (2006) suggest that a supportive

family climate appears to be highly effective in protecting adolescent children from externalizing problems.

Past research viewed parental control as a single dimension that ranged from high to low. Baumrind (1989) suggested the ways parents balance different forms of control with different ways to support autonomy in their children are characterized by parenting styles. According to Baumrind, parents who apply restrictive control without recognizing where their children can exercise autonomy are classified as authoritarian; parents who ignore problematic behaviors or provide inconsistent control and allow their children too much autonomy are classified as permissive; and parents who apply firm control in a just and fair way, are able to justify their directives by reason, and grant an appropriate amount of autonomy are classified as authoritative. Although parental control is considered an important factor in determining child outcomes in numerous studies, Steinberg (1990) pointed out that different forms of control appear to have different effects on adolescents: they are adversely affected by psychological control (the absence of psychological autonomy), but positively influenced by behavioral control (the presence of demandingness).

Barber (1996, 2002) defines psychological control as parental attempts that intrude into the psychological and emotional development of the child. Barber (1996) conceptualizes psychological control as a negative form of control which impedes the development of autonomy and self-direction; behavioral control, on the other hand refers to regulation, supervision, and management of behavior and is conceptualized as a positive form of control which provides youth

with appropriate levels of guidance and supervision. Research findings supporting this distinction have shown that behavioral control, namely parental behavior aimed at controlling or managing children's behavior, has been found to be less problematic than psychological control (Aunola & Nurmi, 2005; Barber, 1996; Galambos, Barker, & Almeida, 2003; Gray & Steinberg, 1990; Smetana & Daddis, 2002). In fact, behavioral control is associated with fewer delinquent behavior problems (Pettit, Laird, Dodge, Bates, & Criss, 2001). Psychological control, in contrast, has been found to be associated with both internalizing and externalizing behavior problems (Mills & Rubin, 1998).

### **Parenting and Bullying**

Researchers who have examined the relationship between parenting and bullying have found that children of authoritarian or permissive parents tend to have more bullying and victimization problems than children of authoritative parents (Baldry & Farrington, 2000; Bowers et al., 1994; Finnegan, Hodges, & Perry, 1998; Ladd & Kochenderfer-Ladd, 1998; Olweus, 1993; Rigby, 2002; Underwood et al., 2009; Vaillancourt, Miller, Fagbemi, Cote, & Tremblay, 2007). Although precise connections between parenting styles and bullying have not been clearly delineated, it is possible that children of authoritarian parents learn that using aggression is a good way to solve problems. Conversely, children of permissive parents do not learn to control their aggression or consider others' needs and perspectives (Casas, Weigel, Crick, Ostov, Woods, Jansen Yeh, & Huddlestone-Casas, 2006; Eisenberg, 2004; Sandstrom, 2007).

Olweus (1993) argues that bullying results from adverse home conditions, which create a stable aggressive trait within some children. Through structured interviews with parents of aggressive boys, Olweus concluded that the emotional attitude of parents contributes to how the child's peer relations develop at school. Olweus' findings suggest a negative emotional attitude and use of power-assertive methods of discipline, together with permissiveness of aggression increase the possibility that a child will become aggressive towards others.

Reviews by Smith and Myron-Wilson (1998) and Duncan (2004) offer a summary of research findings relating parenting to bully or victim status: Parents whose child becomes a bully are more likely to use a harsh discipline style; parents whose child becomes a victim are more likely to be overprotective or excessively controlling; parents whose child becomes both bully and victim are more likely to experience and expose their children to violence, conflict, and physical abuse.

Authoritarian parenting is associated with children thinking they will get their way by using force with peers, particularly if parents model coercion as an effective means of resolving conflict (Hart et al., 2003). Ahmed and Braithwaite (2004) examined the role of the family and school in discriminating among bullies, victims, and bystanders. Their findings indicate that bullies and victims share social adjustment problems that extend across family and school. Both report problems at school and at home, dislike school, and see few constraints on bullying in the school setting. Bullies, in particular, are distinguished by their reports of an authoritarian parenting style. Schwartz et al. (1997) examined early

socialization patterns that predict bullying behavior and found boys classified as bullies were exposed to conflict and violence in the home. Schwartz et al. postulate that bullies hold positive beliefs regarding the outcome of aggressive behavior, predisposing them to bullying behavior.

For children who are bullied, some researchers suggest a link between parental overprotective, intrusive parenting and social withdrawal (e.g., Barber, Olsen, & Shagle, 1994; Rubin, Cheah, & Fox, 2001; Rubin & Coplan, 2004). These studies provide support for the idea that children who are not allowed to manage their own situations may not develop coping and problem-solving strategies in their interpersonal settings. Ladd and Kochenderfer-Ladd (1998) examined aspects of parenting that may predispose children to become victims and found children whose parents displayed higher levels of intrusive demandingness tended to report higher levels of peer victimization. These aspects of parent-child relationships in early childhood are thought to offer children little opportunity to control or influence social contingencies, thus restricting their opportunity to practice assertive interpersonal skills. In addition, children may develop passive and dependent behaviors, express vulnerabilities to seek attention or support, and refrain from participating in situations in which skills for coping with confrontation are likely to be learned. Overprotective parenting behaviors have been shown to contribute to internalizing behavior problems which can, in turn, lead to victimization problems with peers. Background factors predisposing a child to become a passive victim include intrusive, overprotective parenting

(Bowers et al., 1994), love withdrawal, and attempts to constrain or manipulate the child's thoughts and feelings (Finnegan et al., 1998).

Low levels of parental care and high levels of overprotectiveness appear to have negative consequences for the peer relations of adolescents at school, predisposing them to become bully/victims (Rigby, Slee, & Cunningham 1999). Children from homes in which parents are less involved with their children and are sometimes hostile and rejecting tend to be classified as both bullies and victims (Bowers et al., 1994). These children indicate more troubled relations with parents; they perceive parents lowest for accurate monitoring and warmth, and highest for overprotection and for neglect, thus indicating inconsistent discipline and monitoring practices which are not tempered by warm affection (Pettit, Bates, & Dodge, 2000). These findings are consistent with other researchers who differentiate between aggressive and passive victims. In the study by Schwartz et al. (1997), it was found that early parent-child interactions characterized by hostility and restrictive or overly punitive parenting serve to dysregulate children emotionally leading to later hyper-reactive anger and victimization. An early home environment characterized by exposure to violence and the direct experience of physical victimization by adults is thought to lead to later bullying and victimization with peers.

Conversely, authoritative parenting is thought to foster the development of children's prosocial tendencies. Bowers et al. (1994) report that children who are identified as neither bully nor victim depict their parents as providing a warm, secure environment without being over-involved with their children. Casas et al.,

(2006) found that mothers' authoritative parenting was negatively associated with less physical aggression. Pettit et al. (2000) report that parents who rely on calm discussion and other inductive approaches in disciplinary encounters may inculcate in their children a sense of respect for contrasting perspectives and a belief that disputes can be resolved through nonaversive means. Through modeling, tutoring, and instruction in how to avoid and resolve conflicts with peers, these children are reported to show better behavioral adjustment than bullies or victims.

Of course, the parent-child relationship is a system in which the parent and child influence one another reciprocally (Kuczynski & Parkin, 2007). Individual children's behaviors may in turn elicit different types of responses from parents. For example, Eisenberg, Zhou, Sprinrad, Valiente, Fabes, and Liew (2005) found that children with higher emotion regulation mediated the relation between parenting and externalizing behavior and that emotion regulation also predicted positive parenting across time. DeBaryshe, Patterson, & Capaldi (1993) posited that children's negative, externalizing behavior precipitates a negative response from parents leading to a self-perpetuating system in which both the parent and child become increasingly coercive. Likewise, Rubin, Nelson, Hastings, & Asendorpf (1999) suggested that when parents perceive their children to be socially anxious and vulnerable, they attempt to be supportive by manipulating their children's social behaviors in a highly directive fashion in an attempt to release the child from social discomfort. Thus, children's difficult behavior may precipitate negative responses from parents and children's adaptive behavior may

elicit positive responses. In the current study, children's adaptive, externalizing, and internalizing behavior was considered to account for the transactional processes between parents and children.

### **Attitudes Toward Bullying**

Salmivalli and Voeten (2004) define bullying-related attitudes as students' moral judgments regarding the acceptability or unacceptability of bullying behavior. Arsenio and Lemerise (2001) argue that bullying cannot be understood without reference to traditional moral issues involving fairness, others' welfare, and refraining from harming others for personal gain. Bullies who deliberately choose to harm others for instrumental gains either choose to violate moral standards or they operate according to a set of moral values that are not based on generally accepted societal principles of fairness and justice (Arsenio & Lemerise, 2004). Why some children use aggression to obtain desirable outcomes even when it requires victimizing and harming others may be understood by considering how children internalize values and cultural expectations from their parents. Some children may bully others, or do little to stop others from bullying because of their negative view of victims. Rigby and Slee (1991) found that although most children tended to express support for victims and disapprove of bullying, a substantial minority of respondents expressed little or no sympathy for victims. Huesmann and Guerra (1997) found that children's normative beliefs about aggression predicted aggressive behavior one year later. Boulton, Bucci, and Hawker (1999) found that students who expressed the weakest anti-bullying attitudes were found to be most often nominated by peers as a bully, suggesting

that students' attitudes concerning bullying and their actual involvement in bullying are associated. Attitudes toward bullying may develop through values of power and dominance modeled in some families.

The social cognitive theory model predicts that parenting practices and attitudes act to model, evoke, and selectively reinforce children's social attitudes and behavior. The steps of choosing from a repertoire of responses, selecting a response and acting on it are affected by a child's moral development. Arsenio and Lemerise (2004) and Nucci (2004) identify the database component of the SIP model as a way to understand how children's social knowledge is organized and how it influences their behavior. This database is drawn from to generate decision-making, and altered in response to feedback generated through the process of interacting with certain parenting styles. How parents' attitudes influence their children's moral development may be particularly salient with respect to bullying. Dodge and Rabiner (2004) suggest that parental attitudes toward aggression play an important role in how the database component of the SIP develops. Smetana (1999) points out that parents influence children's moral development through their responses to children's transgressions and moral disputes, and their explanations of the reasons for rules and expectations.

Grusec and Goodnow (1994) advance an information-processing account of internalization of disciplinary encounters between parents and children which incorporate primarily cognitive factors. Their model integrates cognition and emotion to show both how parents communicate with their child and how motivated the child is to receiving the advice contribute to the development of a

schema of moral values. The relationship in which parent-child interactions are embedded, and the child's interpretation and evaluation of the messages from parents affect a child's internalization of those messages. Some studies have examined the potential impact of parents as agents in their children's moral development. Pratt, Arnold, Pratt, and Diesner (1999) found that children raised by parents who engage in more democratic and inductive practices tend to be more mature in social reasoning. Walker and Hennig (1999) found parents' interaction styles are predictive of their children's moral reasoning development. Parents who are hostile, critical, and insensitive provide a context that hinders children's moral understandings. In contrast, parents who provide emotional support, elicit their children's opinions, draw out children's reasoning and check for understanding stimulate more advanced moral reasoning.

Hymel, Rock-Henderson, and Bonanno (2005) used Bandura's social cognitive theory of moral agency to examine the processes by which student attitudes and beliefs contribute to student involvement in bullying behavior. Bandura (1999, 2002) outlines four categories of moral disengagement which allow individuals to bully others: The cognitive restructuring of harmful behavior; obscuring or minimizing one's role in causing harm; disregarding or distorting the impact of harmful behavior; and blaming and dehumanizing the victim. Hymel et al.'s study examined the justifications, attitudes and beliefs of students who reported differential experiences with bullying. Findings suggest that students who admitted to bullying others were far more likely to morally disengage and that students identified as bystanders also tended to morally disengage, although

to a lesser degree. Menesini et al. (2003) also found that bullies show higher levels of moral disengagement as compared to other children. Although they show some awareness of the negative effects of their behavior on others, their personal motives, and advantages of bullying behavior are sufficient to justify negative and detrimental behavior toward others.

Murray-Close and Crick (2006) explored whether children's moral judgments of physical and relational aggression were associated with their involvement in such behavior. Their findings indicate aggressive children are actually more likely than their peers to identify the harm associated with engagement in aggressive behavior, supporting Sutton et al.'s (1999) argument that bullies believe that aggression is an effective strategy for attaining goals. Arsenio and Fleiss (1996) investigated children's understanding of the consequences of sociomoral events and found that rather than lacking cognitive ability in one or more steps of the SIP model, bullies lack a sense that victimizing others for personal gains is morally wrong.

### **Parent-Child Communication**

By integrating information-processing models and family-based social learning models, it may be possible to explore whether children's involvement in bullying situations and their solutions to bullying problems are part of a family style of social problem-solving where attitudes and solutions are modeled and reinforced by parents.

Although parents of younger children are more directly involved in their children's social relationships through direct supervision, for older children,

parents continue to indirectly affect their children's peer relationships through parent-child conversations (Padilla-Walker & Thompson, 2005). Parents who are warm and accepting and who are empathic toward their child's interests and needs are more likely to have children who share their social experiences with them. For older children, effective monitoring depends on parent-child communication.

Children who bully generally live in families where communication is scarce and ineffective (Rigby, 1994, 1997). Studies that have investigated children's perception of family communication have found that only about one-half of victims say that their parents have talked with them about bullying (Smith, Madsen, & Moody, 1999). Fekkes, Pijpers, and Verloove-Vanhorick (2005) investigated how often children and parents communicate with one another regarding bullying: for victims, results indicate that a substantial number of parents (40%) were unaware their child was being bullied; for children who bully, even a smaller percentage (33%) of parents talked to their children about their behavior.

Most research on parental advising and consulting practices has been conducted with preschool children and has shown that the frequency and quality of conversations about peer-relevant issues such as peers' feelings and how to best resolve peer conflict are associated with individual differences in children's peer competence (Laird, Pettit, Mize, Brown, & Lindsey, 1994). This research has been conducted in settings where researchers can observe parent-child interactions (Russell & Finnie, 1990) or in settings in which parents discuss hypothetical peer relationship dilemmas with their children (Mize & Cox, 1990; Mize & Pettit,

1997). Through conversations about peer relationship issues, parents who suggest more active and skillful strategies and who help children find positive strategies for dealing with peer relationship difficulties and promote resilient attitudes when discussing these issues with their children have children who are rated as more socially competent (Laird et al., 1994). As most of the research in this area focuses on interactions between parents and preschoolers (e.g., Dunn, Brown, & Beardsall, 1991; Laird et al., 1994; Mize & Pettit, 1997; Pettit & Mize, 1993), the current study addressed the need for empirical data that examines communication between parents and older children.

How parents talk to their children about relationships may be as important as what they say. In a study which examined both stylistic qualities of mother-child interactions and the actual content of mother-child communications (information, support and advice specific to getting along with peers) to determine whether peer competence is associated with more general aspects of positive parenting or with the specific practice of talking about peers, findings suggest that both paths of influence may be operating (Laird et al., 1994). General aspects of parenting style, such as warmth and involvement, provide the context that makes specific parenting practices, such as providing advice or guidance, more effective. Children whose mothers talk about emotions and feelings and provide advice about making friends or dealing with aggressive peers learn to attend to relevant social cues, consider the feelings of others, and increase their repertoire of problem-solving strategies.

How parents and children attempt to resolve peer conflict situations has received some research attention. McDowell, Parke, and Wang (2003) assessed the relative contributions of style and content on children's social competence. They devised a family discussion task to determine whether better quality of advice and parental interaction style was associated with higher ratings of children's social competence. In a videotaped laboratory setting, mother, father, and child were asked to discuss peer situations that would be difficult for the child to deal with. The number of advice-giving solutions, quality of advice, and parents' interaction style were coded and the relationship between parental advice giving content and style and children's competence as assessed through sociometric interviews by classmates and a classroom behavior inventory by teachers was measured. Their findings show that parent-child relationships that are characterized by power-assertive control predict lower levels of social competence. Like results from the Laird et al. (1994) study, this study suggests that parental style is important in that it makes children more or less receptive to seeking and receiving advice about peer relationships from their parents.

The way parents model and reinforce strategies for responding to conflict may influence how children select and use these strategies in peer conflict situations. Barrett, Rapee, Dadds, and Ryan (1996) investigated the role of parents in reinforcing avoidant or aggressive strategies in anxious and aggressive children. In this study, anxious, oppositional, and a control group of children and their parents were asked separately to interpret and provide plans of action to ambiguous scenarios. Afterwards, each family was asked to discuss two of these

situations as a family and for the child to provide a final response. Results showed that anxious and oppositional children were both more likely to interpret ambiguous situations in a threatening manner and anxious children predominantly chose avoidant solutions whereas oppositional children chose aggressive solutions. After family discussions, groups of children's avoidant and aggressive plans increased providing evidence of parental enhancement of avoidant and aggressive problem-solving strategies in children.

Stevens, De Bourdeaudhuij, and Van Oost (2002) compared differences between victims, bullies, bully/victims, and noninvolved children and between their parents on problem-solving strategies in bully/victim conflicts. Hypothetical conflict situations in which the child has been bullied or is at risk for bullying other children were presented to students and parents and they were asked how they would feel and what they would do. Response categories included negative affective reactions, avoidance, destructive problem-solving, and constructive problem-solving. Group differences were revealed for strategies used in hypothetical bully conflicts with more negative emotional reactions given by victims, bullies, and bully/victims as compared to noninvolved children. Children in the bully and the bully/victim group reported more destructive reactions and children in the victim group reported more avoidant reactions compared to the noninvolved group. For parents, there were differences between groups with parents of victims showing more avoidance strategies compared to parents of bullies. These findings show that parents' and children's response patterns are

highly correlated suggesting children's response patterns may be modeled and reinforced by their parents.

### **Goals of the study**

This study contributes to the existing literature by examining the associations between specific parenting dimensions and bullying behavior in adolescents. Participants were asked whether they have been bullies, victims or bystanders and if they were to be victimized, what would they do. The goal of this study was twofold: First, to discern what combination of family factors (parenting dimensions, attitudes toward aggression, and communication between parents and adolescents) provide a context for the development of bully, victim, and bystander behavior in children; and second, to determine if parents and children use effective problem-solving strategies when confronted with bullying situations. Two separate models were developed: The first depicts the relationship among parenting dimensions, attitudes toward aggression, communication, and bullying behavior (see Figure 1) and the second examines the relationship among these same family factors and problem-solving skills that parents and children might utilize to solve bullying problems (see Figure 2).

### **Research Hypotheses**

The purpose of this investigation was to determine what unique combinations of parenting dimensions (behavioral control, psychological control, support) predict adolescents' social behavior in bullying situations. The research hypothesis is that high levels of support and moderate to high levels of behavioral control, combined with low levels of psychological control produce the most

optimal social behavior. Social behavior is defined in two ways: First, it is defined through adolescent self-reports of bully behavior, victim behavior and prosocial behavior; and second, through hypothetical situations where adolescents and parents indicate how they would react if presented with bullying situations. Thus, for the present analysis, two models were tested: The first predicts that high levels of support, moderate to high levels of behavioral control, and low levels of psychological control affect adolescents' involvement in bully, victim, or prosocial behavior. The second predicts that high levels of support, high to moderate levels of behavioral control, and low levels of psychological control increase the effectiveness with which parents and adolescents solve hypothetical bullying situations. Evaluation of these two models allows the investigation of both direct and indirect paths of influence among these variables. Indirect influences that are tested in these two models are child behavior (externalizing, internalizing, and adaptive), attitudes toward aggression, and parent-child communication.

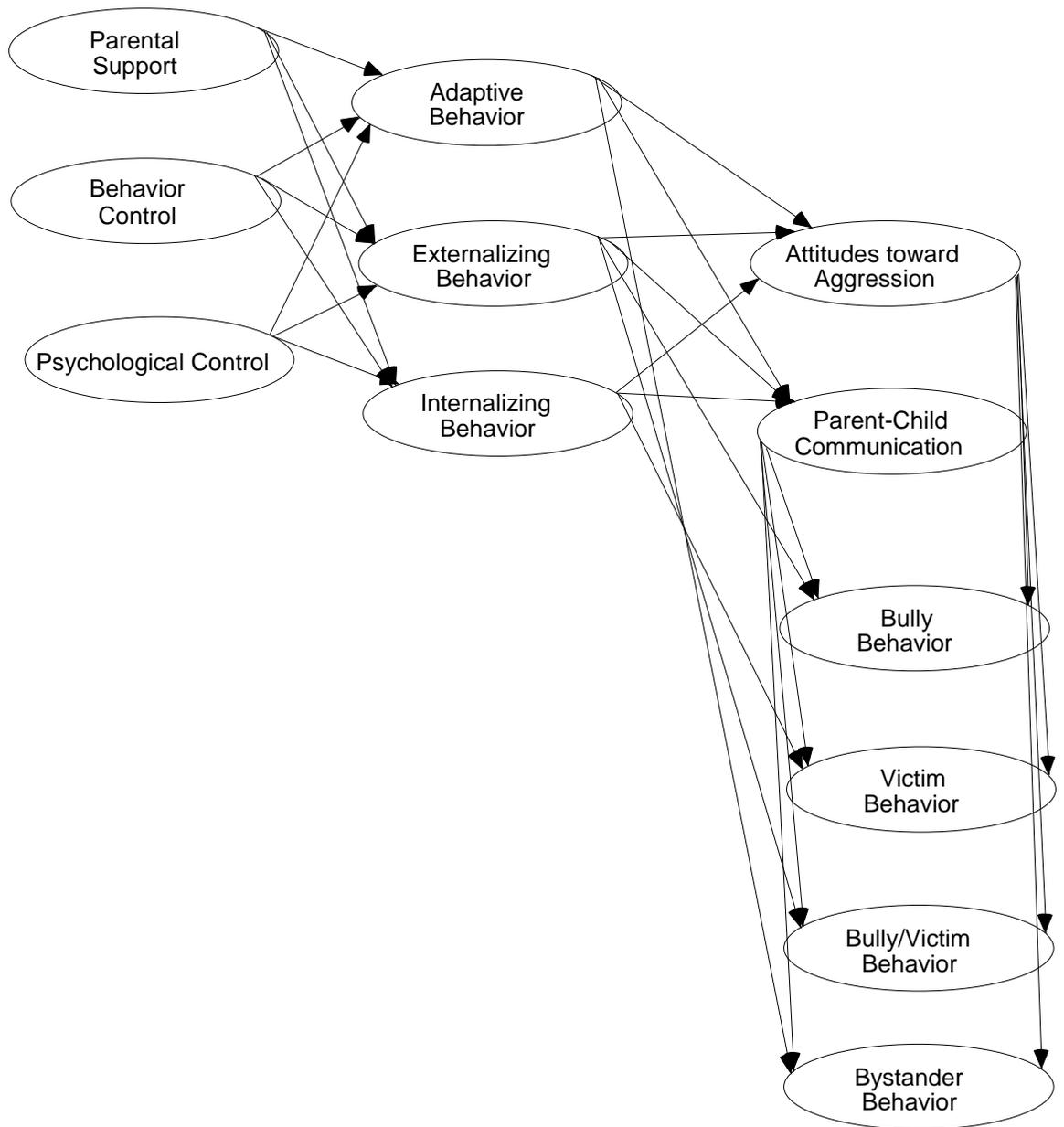
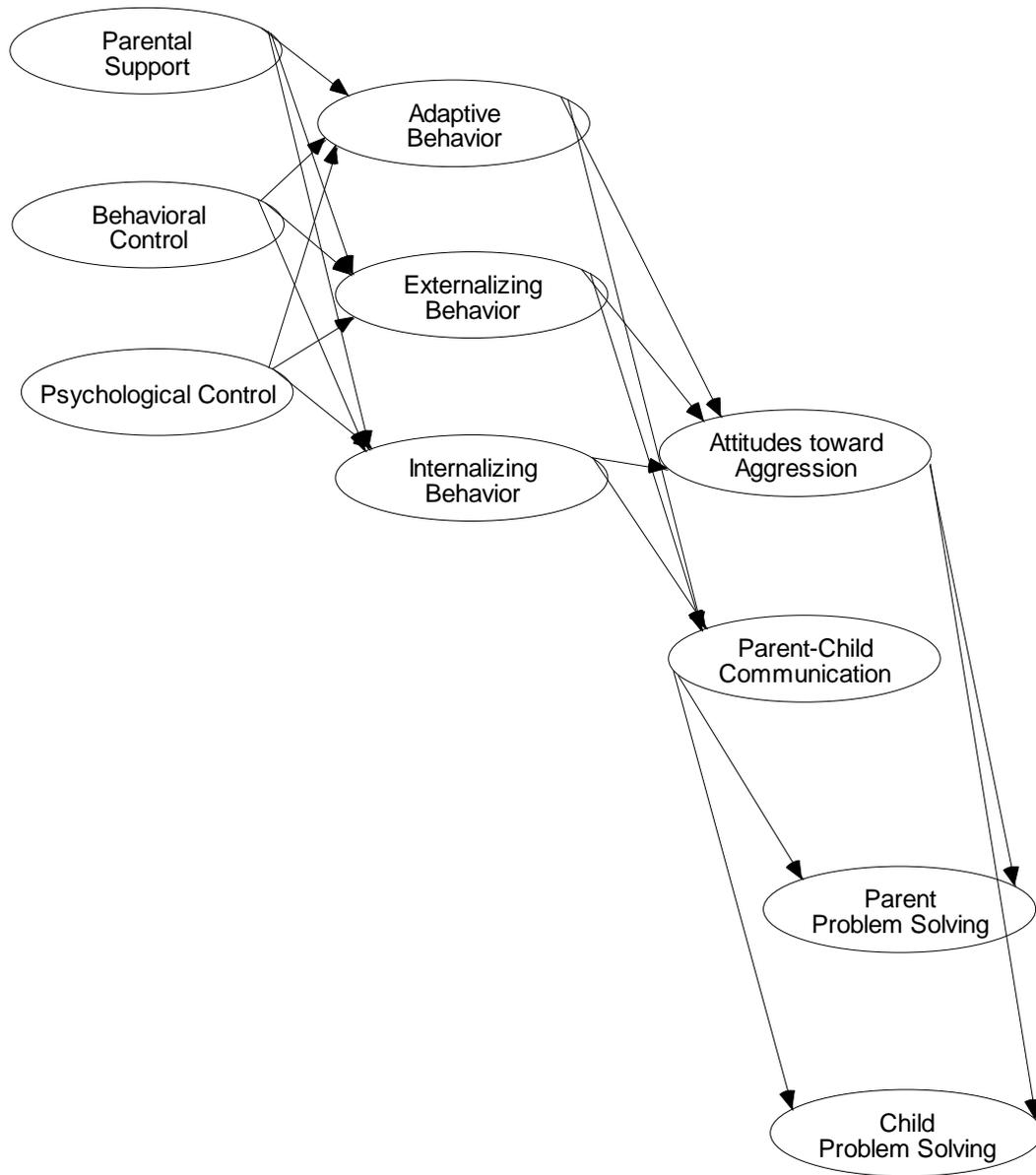


Figure 1. Proposed structural equation model of parenting dimensions and bullying roles.



*Figure 2.* Proposed structural equation model of parenting dimensions and problem-solving strategies in hypothetical situations.

## Method

### Participants

Participants were recruited from grades 7 and 8 classes from 7 different schools in public and separate school boards in and near a large Western-Canadian city. For this study, of the 1200 information letters that were distributed, 225 students whose parents also agreed to participate were included for an overall participation rate of 19 per cent. Participation rate varied by school, ranging from 6 per cent to 33 per cent. Participants were 125 grade 7 students and 100 grade 8 students (135 females and 90 males;  $M = 12.74$  years) and one of their parents. The sample was predominantly middle class and the ethnicity breakdown of the sample was Caucasian (86.7%), Asian-Canadian (8.4%), East Indian-Canadian (3.1%), and Latino-Canadian (1.8%).

### Procedure

Following approval from the institutional review boards, and administrators and teachers, data was collected between October 2008 and May 2009. The researcher visited classes at each school and distributed an information letter (see Appendix A) and consent form (see Appendix B) for students to take home for their parent(s) to sign. Parents were offered a choice of participating in the study along with their child or allowing only their child to participate. After students returned parent permission forms, the researcher returned to the schools where students completed anonymous self-report questionnaires in classrooms or in the library. Those students who chose not to participate were provided with an alternative activity about bullying. Students whose parents also agreed to

participate were provided with self-report parent questionnaires to take home to parents, and once completed parents mailed them to the research team using a prepaid envelope. Families who completed both a student and a parent questionnaire were sent a \$25 gift card for a bookstore as a token of appreciation for participating in the study.

### **Measures**

Existing measures with acceptable reliability and validity were selected based on a review of the literature (see Appendix C).

**Parenting Style Scale (PSS).** The PSS (Lamborn, Mounts, Steinberg, & Dornbusch, 1991; Steinberg, Lamborn, Darling, Mounts, & Dornbusch, 1994; Steinberg, Lamborn, Dornbusch, & Darling, 1992) is a 26 item adolescent report questionnaire that assesses Baumrind's parenting styles using a four point scale ranging from *strongly agree* to *strongly disagree*. The PSS assesses two domains of parenting which purport to approximate the responsiveness and demandingness dimensions suggested by Baumrind (1971) and Maccoby and Martin (1983). Three scales were used for the current study: Parent support which measures the extent to which adolescents perceive their parents as loving, responsive and involved, behavior control which measures parental monitoring and limit setting, and psychological autonomy granting which assesses the extent to which parents employ noncoercive, democratic discipline and encourage the adolescent to express individuality within the family. In the present sample, reliabilities for the three scales are as follows: Parent support  $\alpha = .79$ ; behavior control  $\alpha = .77$ ; and psychological autonomy granting  $\alpha = .71$ .

**Behavior Assessment System for Children, second edition (BASC-2) Self-Report of Personality-Adolescent form (SRP-A).** The BASC-2 SRP-A (Reynolds & Kamphaus, 2004) is a norm-referenced, standardized instrument consisting of 185 items, some of which call for a true or false response, others of which require a rating on a four-point scale of frequency ranging from never to almost always. Scores are derived from normative data based on a standardization sample of  $N = 3400$ . Total raw scores for each scale are converted into composite scores (t-scores with a mean of 50 and standard deviation of 10). Composite scale scores used in this study were Internalizing, Inattention/Hyperactivity, and Personal Adjustment. Reynolds and Kamphaus report internal consistencies of  $\alpha = .96$ ,  $\alpha = .84$ , and  $\alpha = .90$  and test-retest reliabilities of  $\alpha = .81$ ,  $\alpha = .79$ , and  $\alpha = .76$  for the three scales respectively.

**Normative Beliefs about Aggression Scale (NOBAGS).** The NOBAGS (Huesmann & Guerra, 1997) is a 20-item questionnaire which measures children's beliefs about the legitimacy of using aggression in general and retaliatory situations on a four-point scale ranging from *It's perfectly OK* to *It's really wrong*. In the current study, a General Approval of Aggression subscale was used with a reliability of  $\alpha = .84$

**Parental Attitudes to Bullying Scale (PABS).** The PABS (Eslea & Smith, 2000) is a 15-item scale which provides an overall measure of sympathy based on three subscales that also address specific attitudes towards victims, bullies and intervention. Items are answered on a five point scale (*agree, slightly agree, not sure, slightly disagree, disagree*). Since the three scales had

unacceptable reliabilities (Victim scale  $\alpha = .40$ ; Bully scale  $\alpha = .33$ ; Intervention scale  $\alpha = .37$ ), this measure was not included in further analyses.

**Parent-Child Communication Scale (PCCS).** The PCCS (McCarty, McMahon, & Conduct Problems Prevention Research Group, 2003) has a child form which assesses children's perceptions of their parents' openness to communication and a parent form which assesses parents' perceptions of their openness to communication and their children's communication skills. This measure was adapted by the Conduct Problems Prevention Group from the Revised Parent-Adolescent Communication Form used in the Pittsburgh Youth Study (See Loeber, Farrington, Stouthamer-Loeber, & Van Kamman, 1998). Both the child and parent versions consist of a 5-point scale ranging from *almost never* to *almost always*. The child report is a 10-item measure which assesses children's perceptions of their parents' openness to communication on a 5 point scale ranging from *almost never* to *almost always*. Reliabilities for the current sample were as follows: Parent Communication  $\alpha = .69$ , Child Communication  $\alpha = .89$ . The parent version is a 20-item measure consisting of a 5-point scale ranging from *almost never* to *almost always*. Reliability for the current sample on the Parent Communication scale was  $\alpha = .72$ .

**Peer Relations Questionnaire (PRQ).** The PRQ (Rigby & Slee, 1993) is a set of 20 items which assesses children's tendency to bully others (e.g., "I like to make other kids scared of me"), to be victimized by others (e.g., "I get picked on by other kids"), and to act in a prosocial or cooperative manner (e.g., "I share things with others"). Responses are scored on a 4-point scale ranging from *never*

to *very often*. For each of the three scales reliabilities for the current sample were as follows: Bully scale  $\alpha = .71$ ; Victim scale  $\alpha = .85$  and Prosocial scale  $\alpha = .68$ .

**Alternative Solutions Test.** A hypothetical situations task was developed based on the work of Caplan, Weissberg, Bersoff, Ezekowitz, and Wells (1986) to assess adolescents' and parents' ability to generate alternative solutions to hypothetical bullying problems. Four short scripts about peer interactions and social problem solving were developed (see Appendix C) and participants were instructed to imagine themselves as the story protagonist or as the parent of the story protagonist. Themes of the scripts were related to well-known problems for adolescents that are typical for their age group and that encompass physical, verbal, relational, and cyberbullying. After reading each vignette, student participants were asked to generate as many solutions as they could think of to solve each bullying situation and parent participants were asked how they would discuss each situation with their child and to list as many solutions as they could think of to help their child in each imagined situation.

For both adolescent and parent responses, solutions were categorized as aggressive, passive, help-seeking, non-confrontational, assertive, and cooperative. Solutions were then coded on a four-point holistic effectiveness scale ranging from *very ineffective* to *very effective*. For adolescents, effectiveness was rated very ineffective if the respondent suggested mainly aggressive solutions (e.g., I would hit back, I would give dirty looks, I would get my friends to bully or shun the offender), and more effective based on how well the solution maximized positive consequences and minimized negative consequences for the self and

others, how possible and plausible the solutions were, and how much social skillfulness was displayed. For parents, effectiveness was based on whether parents encouraged the child to develop strategies, solutions and coping tools for solving problems, whether parents sought the child's input on possible solutions, if they considered the child's feelings and provided reassurance, warmth, and support for the child, and if they involved authorities or others at earlier or later stages depending on the situation. All solutions were scored independently by two raters and an interrater reliability analysis using Cohen's kappa was performed to determine consistency among raters. For effectiveness of child solutions interrater reliability for the two raters was found to be  $K = .84$  for physical bullying,  $K = .81$  for verbal bullying,  $K = .83$  for relational bullying, and  $K = .84$  for cyberbullying. For effectiveness of parent solutions, interrater reliability for the two raters was found to be  $K = .84$  for physical bullying,  $K = .90$  for verbal bullying,  $K = .89$  for relational bullying, and  $K = .93$  for cyberbullying.

### **Results**

The purpose of the present study was to examine the effects of parenting dimensions on children's bullying behavior with beliefs about aggression and parent-child communication as mediators. First, a model which examined adolescents' bullying behavior was tested, and second, a model which examined parents' and adolescents' problem-solving strategies in hypothetical bullying situations was tested. Structural Equation Modeling (SEM) was used for this study as confirmatory factor analysis (the measurement portion of the model) and path analysis (the structural part of the model) of the latent factors can be

performed simultaneously while assessing and correcting for measurement error (Byrne, 2006).

Analyses were conducted using the EQS 6.1 (Bentler, 2006) program and were divided into four stages. First, multiple regression procedures were performed to determine whether the exogenous variables of theoretical interest would predict the endogenous variables. Second, data was screened for outliers and normality. Third, the proposed measurement model was assessed and the reliability and validity of the measurement constructs were examined. Finally, the proposed structural models were assessed.

### **Preliminary Procedures and Data Screening**

Prior to developing the measurement portion of the model, initial regressions were conducted, and data was screened for outliers and normality.

**Regression procedures to select variables.** Composite variables were created and three multiple regression procedures were conducted to determine whether the proposed exogenous variables for the structural equation model would significantly predict the endogenous variables of interest. First, independent variables were regressed on each of the dependent variables; second, independent variables were regressed on each of the mediating variables; and finally, mediating variables were regressed on each of the dependent variables. Only significant results are reported and other variables were excluded from consequent analyses.

In the first set of regressions, the variables Parent Support, Behavior Control, and Psychological Control were regressed on each of the Bully Behavior,

Victim Behavior, and Prosocial Behavior variables. Results indicated Parent Support was negatively related to both Bullying Behavior,  $\beta = -.29$ ,  $F(4, 214) = 13.91$ ,  $p < .05$ , and Victim Behavior  $\beta = -.16$ ,  $F(4, 216) = 4.48$ ,  $p < .05$ , and positively related to Prosocial Behavior  $\beta = .16$ ,  $F(4, 216) = 3.97$ ,  $p < .05$ .

In the second set of regressions, the independent variables were regressed on each of the mediating variables. The first group of mediating variables was Internalizing, Externalizing, and Adaptive Behavior. Results showed that Parent Support,  $\beta = -.25$ ,  $F(4, 207) = 16.12$ ,  $p < .05$ , and Behavior Control,  $\beta = -.13$ ,  $F(4, 207) = 4.65$ ,  $p < .05$ , were negatively related to Internalizing Behavior, and Psychological Control,  $\beta = .30$ ,  $F(4, 207) = 22.04$ ,  $p < .05$ , was positively related to Internalizing Behavior. Likewise, Behavior Control was negatively related to Externalizing Behavior,  $\beta = -.15$ ,  $F(4, 208) = 4.39$ ,  $p < .05$ , and Psychological Control was positively related to Externalizing Behavior,  $\beta = .17$ ,  $F(4, 208) = 4.44$ ,  $p < .05$ . Finally, Parent Support,  $\beta = .39$ ,  $F(4, 207) = 35.27$ ,  $p < .05$ , and Behavior Control,  $\beta = .17$ ,  $F(4, 207) = 7.88$ ,  $p < .05$ , were positively related to Adaptive Behavior whereas Psychological Control was negatively related to Adaptive Behavior,  $\beta = -.14$ ,  $F(4, 207) = 4.34$ ,  $p < .05$ . The second group of mediating variables was Beliefs about Aggression and Parent-child Communication. Results show that Parent Support was positively related to Beliefs about Aggression,  $\beta = .31$ ,  $F(4, 214) = 15.07$ ,  $p < .05$ , Parent Support,  $\beta = .49$ ,  $F(4, 216) = 70.15$ ,  $p < .05$ , and Behavior Control,  $\beta = .19$ ,  $F(4, 216) = 12.20$ ,  $p < .05$ , were positively related to Parent-child Communication, and

Psychological Control was negatively related to Parent-child Communication,  $\beta = -.22$ ,  $F(4, 216) = 13.27$ ,  $p < .05$ .

In the third set of regressions, the mediating variables were regressed on each of the dependent variables. Results from the first group of mediating variables indicated that Externalizing Behavior was positively related to Bully Behavior,  $\beta = .43$ ,  $F(4, 212) = 26.70$ ,  $p < .05$ , Internalizing Behavior was positively related to Victim Behavior,  $\beta = .31$ ,  $F(7, 199) = 18.44$ ,  $p < .05$ , Adaptive Behavior was negatively related to Victim Behavior,  $\beta = -.26$ ,  $F(7, 199) = 7.68$ ,  $p < .05$ , and Internalizing,  $\beta = .41$ ,  $F(7, 201) = 14.57$ ,  $p < .05$ , and Adaptive Behavior,  $\beta = .25$ ,  $F(7, 201) = 5.69$ ,  $p < .05$  were both positively related to Prosocial Behavior. Results from the second group of mediating variables showed that Beliefs about Aggression was negatively related to Bully Behavior  $\beta = -.15$ ,  $F(2, 203) = 5.57$ ,  $p < .05$ .

**Screening for outliers and normality.** Before proceeding further with analyses, the above regression models were examined for outliers on the x- and y-space via Cook's Distance values (Belsley, Kuh & Welsh, 2004). In the Bully regression model, 17 cases were classified as outliers, 15 cases were deemed to be outliers in the Victim regression model, and 11 were considered as outliers in the Prosocial model. These cases were deleted and not included in consequent analyses. In addition to outliers being deleted, listwise deletion was employed when running the models, so cases with missing data ( $n = 7$ ) were not included in the analyses leaving a total  $N$  of 172. Then, univariate normality was identified by assessing the skewness and kurtosis of the variables. Although multivariate

normality can be assumed when the univariate distributions are normal and the distribution of any pair of variables is bivariate normal, it is impractical to examine all joint distributions; therefore examining univariate distributions usually allows for detection of instances of non-normality (Kline, 2005). The descriptive statistics for each of the items are shown in Table 1. Although the kurtosis indices of all but one of the items (i.e., PRQ16, one of the Bully Behavior items) were within the acceptable range, the skew indices of 42 items were above three. Thus, these variables were transformed accordingly. Items that were negatively skewed were transformed using a power function while items that were positively skewed were transformed using a square root or natural log function (Judd & McClelland, 1989). The skew indices of all but the Bully Behavior transformed variables fell below three.

Table 1

*Descriptive Statistics for Indicator Variables*

Item	Mean	SD	Skewness	Kurtosis
PSS1	3.66	.586	-1.691	2.697
PSS9	2.94	.959	-.566	-.629
PSS11	3.47	.696	-1.263	1.434
PSS13	3.41	.808	-1.143	.338
PSS15	2.87	.872	-.379	-.532
PSS17	3.31	.862	-1.099	.377
PSS6	1.90	.980	.741	-.604
PSS8	2.27	.925	.282	-.737
PSS14	1.97	.908	.675	-.320
PSS16	1.80	.947	.824	-.511

*Table continues*

Item	Mean	SD	Skewness	Kurtosis
PSS18	1.88	.963	.686	-.730
PSS2.3b	2.34	.596	-.292	-.651
PSS2.3c	2.51	.680	-1.060	-.120
PSS2.4a	2.74	.514	-1.845	2.594
PSS2.4b	2.45	.605	-.620	-.542
PSS2.4c	2.70	.540	-1.658	1.859
Internalizing	48.02	9.214	.958	.724
Externalizing	48.67	9.380	.803	.197
Adaptive	52.85	8.964	-.582	-.032
NOBAGS13	2.64	.570	-1.522	2.370
NOBAGS14	2.69	.511	-1.359	.869
NOBAGS15	2.49	.626	-.825	-.325
NOBAGS16	2.83	.381	-1.731	1.008
NOBAGS17	2.79	.436	-1.862	2.549
NOBAGS18	2.83	.405	-2.304	4.693
NOBAGS19	2.78	.456	-1.902	2.838
NOBAGS20	2.89	.350	-3.301	11.099
PCCC1	4.21	.981	-1.222	.977
PCCC2	3.72	.993	-.466	-.187
PCCC6	4.48	.946	-1.885	2.917
PCCC10	3.34	1.244	-.308	-.887
PCCC5	3.53	1.126	-.299	-.618
PCCC7	3.63	1.219	-.482	-.753
PCCC8	3.78	1.167	-.710	-.315
PCCP1	4.69	.680	-2.565	7.392
PCCP4	4.34	.759	-.896	.124
PCCP7	3.99	.961	-.896	.663
PCCP9	4.38	.804	-1.285	1.171
PCCP13	4.30	.766	-.892	.283
PCCP18	3.65	1.029	-.267	-.663

*Table continues*

Item	Mean	SD	Skewness	Kurtosis
PCCP 11	3.54	.894	-.198	.209
PCCP20	4.27	.732	-.555	-.627
PCCP10	3.86	.981	-.655	-.033
PCCP12	4.34	.805	-.839	-.515
PCCP14R	3.75	.916	-.186	-.633
PCCP 15	4.38	.873	-1.351	1.254
PCCP16	4.03	.891	-.671	-.035
PRQ4	1.22	.416	1.357	-.160
PRQ9	1.19	.450	2.322	4.847
PRQ11	1.23	.488	2.010	3.320
PRQ14	1.42	.601	1.297	1.474
PRQ16	1.04	.198	4.690	20.232
PRQ3	1.84	.580	.389	1.513
PRQ8	1.65	.579	.235	-.690
PRQ12	1.61	.616	.633	.265
PRQ18	1.74	.578	.092	-.467
PRQ10	2.61	.713	.240	-.407
PRQ15	3.08	.667	-.206	-.310
PRQ20	3.27	.685	-.520	-.325
BULLY1	2.41	.68	1.38	.52
BULLY2	2.29	.54	1.70	2.00
BULLY3	2.46	.66	1.50	2.47

Because the transformed items used to measure Bully Behavior were still highly skewed, the items were parceled based on their item-total correlations in the reliability analyses (Coffman & MacCallum, 2005). Refer to Table 2 for a list of the items, their item-total correlations, and parcel numbers. The transformed variables and the Bully Behavior parcels were used in subsequent procedures.

Table 2

*Bully Behavior Parcels*

Item	Item-Total Correlation	Parcel Number
4 Give others a hard time	.368	3
9 Tease others in group	.280	3
11 Make others scared	.426	1
14 Show others I'm the boss	.343	2
16 Enjoy upsetting wimps	.269	2
17 Get into fights with others I can beat	.109	1

**Tests of the Proposed Measurement Model**

Creating the measurement portion of the model involved treating the latent variables (Parent Support, Parent Psychological Control, Parent Behavior Control, Communication, Beliefs about Aggression, Bully Behavior, Victim Behavior, and Prosocial Behavior) to a factor analysis to determine which indicators best represent each latent construct. Each of the constructs maintained at least three items, with the exception of Prosocial Behavior which is defined solely in terms of one item since no other items loaded well onto the construct.

**Assessment of model fit.** A non-significant Chi-square is desirable in testing the overall fit of the model; however, this test statistic has been criticized because of its sensitivity (Bentler & Bonnett, 1980; Hu & Bentler, 1999). In addition to the Chi-square likelihood ratio statistic, other statistics support that the final measurement model fits the data reasonably. Thus, the fit of the models were

assessed using the following statistics and indices: (a) the Chi-square likelihood ratio; (b) the Normed Chi-square (i.e.,  $\chi^2/df$ ) where the lower the ratio, the better the fit (standards are inconsistent as to cut-off points at this time, however somewhere between 2 and 3 is generally accepted; Kenny, 2010); (c) the Non-Normed Fit Index (NNFI), the Incremental Fit Index (IFI), and the Comparative Fit Index (CFI), where indices above .95 indicate good fit and indices above .90 indicate reasonable fit (Hu & Bentler, 1999); (d) the Root Mean Squared Error of Approximation (RMSEA) where indices below .06 indicate good fit, indices below .08 indicate reasonable fit, and indices below .10 indicate mediocre fit (Brown & Cudeck, 1993); and (e) the Standardized Root Mean Square Residual (SRMR) where values less than .08 indicate good model fit (Hu & Bentler, 1998).

The fit indices for the first measurement model are summarized in Table 3. This model did not fit the data well: Although the RMSEA and SRMR were within the acceptable range and the Normed Chi-square was relatively low, the CFI and NNFI (or TLI) were below the acceptable benchmarks.

Table 3

*Chi-square Statistic and Fit Indices for the Proposed Measurement Model*

Index	Proposed
Chi-square	1904.07
Degrees of freedom	1375.00
Sig.	.00
Normed chi-square	1.38
Non-normed fit index (NNFI)	.82
Incremental fit index (IFI)	.84
Comparative fit index (CFI)	.83
Root mean squared error (RMSEA)	.05
Lower bound of 90 percent confidence interval	.04
Upper bound of 90 percent confidence interval	.05
Standardized root mean squared residual (SRMR)	.07

Since the proposed measurement model did not fit well, this model was modified based on three criteria: (a) Only indicator variables with standardized factor loadings above .50 were retained (Hair, Black, Babin, & Anderson, 2009); (b) indicator variables whose squared multiple correlations fell below .50 were deleted (Hair, et al., 2009); and (c) indicator variables that had high Chi-square values in the Lagrange Multiplier Test were deleted as this was an indication that the variables were cross-loading onto other constructs (Schumacker & Lomax, 2004). A list of the deleted items and the reasons for their deletion is presented in Table 4. Although only a single reason is presented for deletion, most variables were deleted for at least two (if not three) reasons.

Table 4

*Items Deleted from the Proposed Measurement Model and Reasons for Item Deletion*

Item	SFL/SMC/ $\chi^2$
Standardized loading below .50	
PRQ 10	.40
PRQ 15	.44
PSS 8	.33
PSS 9	.42
PSS 10	.28
TPSS 18	.48
TPSS 2.3A	.37
TPCCC 6	.47
TPCCC 7	.39
TPCCC 9	.35
TPCCC 12	.46
TPCCC 15	.48
Squared multiple correlation below .50	
TPSS 1	.42
TPSS 2.4C	.33
TAGG 17	.34
Chi-square value for loading onto factor high	
TPSS 2.4A onto Autonomy factor	12.12

**Test of the revised measurement model.** The revised measurement model is depicted in Figure 3 while the fit indices are summarized in Table 5. A significant change in chi-square indicates a substantial improvement in model fit. As shown in Table 5, estimation of this model yielded a significantly improved change in chi-square and this model fit the data well: the NNFI, IFI, and CFI were in the acceptable range, the RMSEA was within the good range, the SRMR was below the acceptable benchmark, and the Normed Chi-square was relatively low.

Table 5

*Chi-square Statistic and Fit Indices for the Revised Measurement Model*

Index	Revised
Chi-square	479.27
Degrees of freedom	377.00
Sig.	.00
$\Delta$ Chi-square	1424.00
$\Delta$ Degrees of freedom	998.00
Sig.	.00
Normed chi-square	1.27
Non-normed fit index (NNFI)	.94
Incremental fit index (IFI)	.95
Comparative fit index (CFI)	.95
Root mean squared error (RMSEA)	.04
Lower bound of 90 percent confidence interval	.03
Upper bound of 90 percent confidence interval	.05
Standardized root mean squared residual (SRMR)	.06

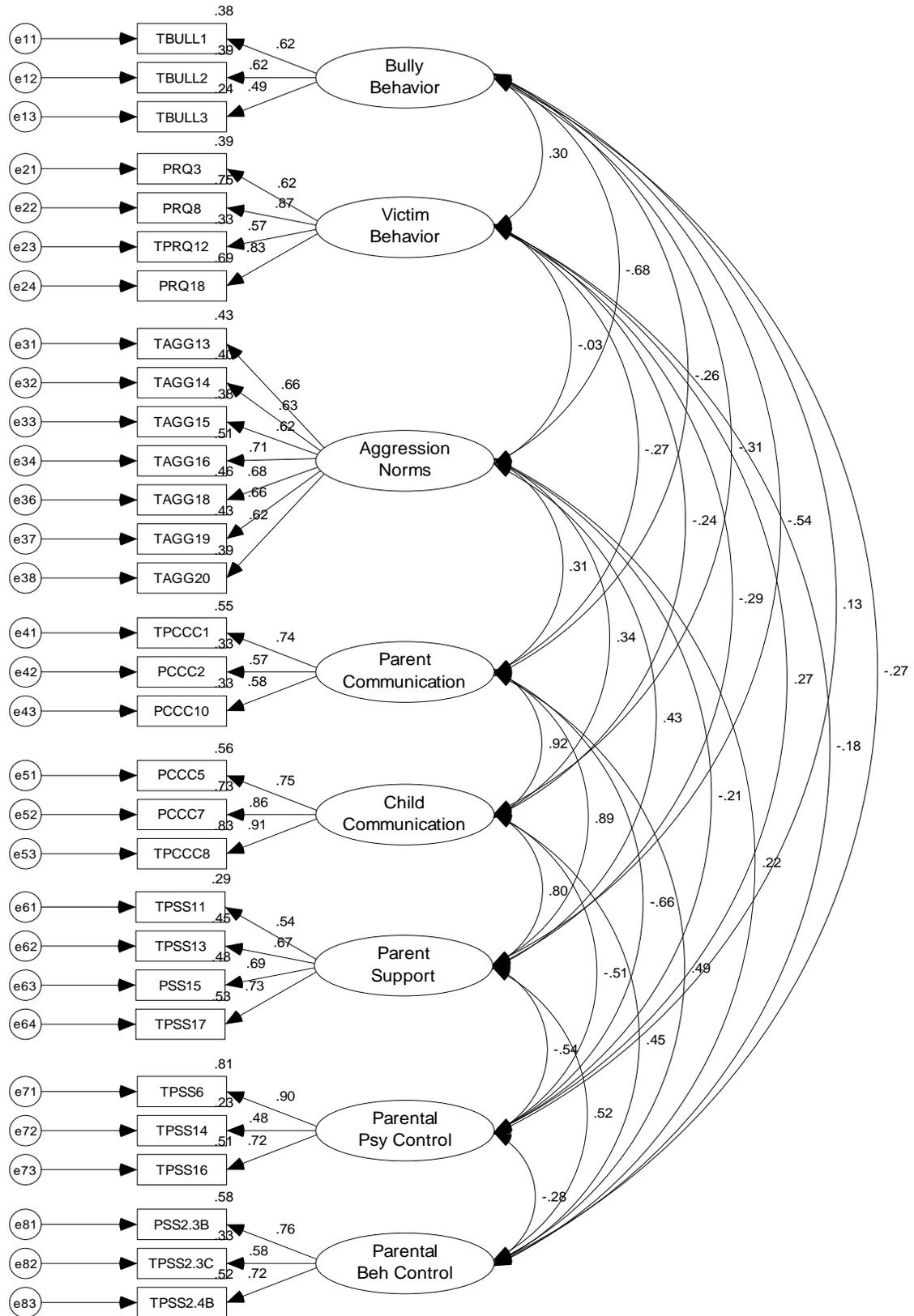


Figure 3. Results for the revised measurement model.

**Reliability and validity of constructs.** To ascertain whether the measured variables were reliable and valid measures of the latent variables, a number of statistical analyses were conducted and are described below.

**Reliability.** Cronbach's alpha, the composite reliability, and the average variance extracted were used to measure the reliability of the constructs. Constructs are deemed reliable when Cronbach's alpha is at least .70 (Nunnally & Bernstein, 1994), the composite reliability exceeds the criterion of .70 (Hair, et al., 2009), and the average variance extracted is above .50 (Hair, et al., 2009). As revealed in Table 6, Parent Communication and Bully Behavior did not meet any of the three criteria for reliability; thus, these constructs had low reliability. Parental Support had acceptable alpha and composite reliability values but the average variance extracted was less than .50. Similarly, Behavioral Control had acceptable alpha and composite reliability values but the average variance extracted was also less than .50. Thus, these two constructs had moderate reliability. The remaining constructs of Psychological Control, Beliefs about Aggression, Child Communication, and Victim Behavior met all three criteria of reliability and were thus reliable constructs.

Table 6

*Reliability Indices for the Revised Measurement Model Constructs*

Construct	Cronbach's Alpha	Composite Reliability <sup>1</sup>	Average Variance Extracted <sup>2</sup>
Parent Support	.75	.75	.44
Psychological Control	.75	.75	.52
Behavior Control	.71	.73	.48
Beliefs about Aggression	.83	.84	.84
Parent Communication (child report)	.64	.67	.40
Child Communication (child report)	.87	.88	.78
Bully Behavior	.59	.60	.34
Victim Behavior	.81	.82	.61

<sup>1</sup> Composite reliability = (square of summation of factor loadings)/[(square of summation of factor loadings) + (summation of error)]. <sup>2</sup> Average variance extracted = (summation of the square of factor loadings)/[(summation of the square of factor loadings) + (summation of error)].

**Validity.** Constructs have convergent validity when the standardized factor loadings are .50 and are statistically significant and when the squared multiple correlations are above .50 (Hair, et al., 2009). As shown in Table 7, all the standardized factor loadings were above .50; not all squared multiple correlations, however, were above .50. Therefore, the constructs demonstrated only moderate convergent validity.

Table 7

*Convergent Validity Results for the Revised Measurement Model*

Variable	Standardized Factor Loading <sup>1</sup>	Squared Multiple Correlation
Parent Support		
TPSS 11	.54	.29
TPSS 13	.67	.45
PSS 15	.69	.48
PSS 17	.73	.53
Psychological Control		
TPSS 6	.90	.82
TPSS 14	.48	.23
TPSS 16	.72	.51
Behavior Control		
PSS 2.3B	.76	.58
TPSS 2.3C	.58	.33
TPSS 2.4B	.72	.52
Parent Communication (child report)		
TPCCC 1	.74	.55
PCCC 2	.57	.33
PCCC 10	.58	.33
Child Communication (child report)		
PCCC 5	.75	.56
PCCC 7	.86	.73
TPCCC 8	.91	.83
Beliefs about Aggression		
TAGG 13	.66	.43
TAGG 14	.63	.40
TAGG 15	.62	.38
TAGG 16	.71	.50
TAGG 18	.68	.46
TAGG 19	.66	.43
TAGG 20	.62	.39
Bully Behavior		
TBULL 1	.62	.38
TBULL 2	.62	.39
TBULL 3	.50	.24
Victim Behavior		
PRQ 3	.62	.39
PRQ 8	.86	.75
PRQ 12	.58	.33
PRQ 18	.83	.69

<sup>1</sup> Factor loadings were statistically significant at .001.

Discriminant validity was assessed (as suggested by Fornell & Larcker, 1981) by comparing the squared correlations (between the constructs) and the average variance extracted for a construct. Constructs have discriminant validity when the squared correlations are lower than the average variance extracted for a construct. The squared correlations vis-à-vis the average variance extracted for each of the constructs is displayed in Table 8. Not all squared correlations for the Parent Support, Beliefs about Aggression, and Parent Communication were lower than their average variance extracted values. Thus, these three constructs did not demonstrate discriminant validity. All other constructs, however, did have discriminant validity.

Table 8

*Discriminant Validity Results for the Revised Measurement Model*

Construct	1	2	3	4	5	6	7	8
1 Parent Support	.44							
2 Psychological Control	.29	.52						
3 Behavior Control	.27	.08	.48					
4 Beliefs about Aggression	.19	.04	.05	.40				
5 Parent Communication	.79	.43	.24	.09	.78			
6 Child Communication	.64	.26	.21	.12	.85	.84		
7 Bully Behavior	.29	.02	.07	.47	.07	.09	.34	
8 Victim Behavior	.08	.08	.03	.00	.07	.06	.09	.61

*Note.* The values of the average variance extracted are on the diagonal; all other entries are the squared correlations.

**Final measurement model.** Since the Parent and Child Communication constructs were highly correlated ( $r = .92$ ,  $p < .001$ ), the two constructs were combined into a single Communication construct. Two items, PCCC2 and PCCC10, had standardized coefficients below .50 and so were dropped from the model. This model is depicted in Figure 4 while the fit statistics are summarized in Table 9. The final measurement model fit the data well: the NNFI, IFI, and CFI were in the acceptable range, the RMSEA was within the good range, the SRMR was below the acceptable benchmark, and the Normed Chi-square was relatively low. A description of the items from the surveys that were included in the final measurement model is listed in Table 10.

Table 9

*Chi-square Statistic and Fit Indices for the Final Measurement Model*

Index	Value
Chi-square	430.06
Degrees of freedom	329.00
Sig.	.00
Normed chi-square	1.31
Non-normed fit index (NNFI)	.94
Incremental fit index (IFI)	.95
Comparative fit index (CFI)	.95
Root mean squared error (RMSEA)	.04
Lower bound of 90 percent confidence interval	.03
Upper bound of 90 percent confidence interval	.05
Standardized root mean squared residual (SRMR)	.06

Table 10

*Measurement Items Included in the Model*

Construct	Measurement Item
Parent Support <sup>a</sup>	When I get a poor grade in school, my parents encourage me to try harder My parents know who my friends are My parents spend time just talking with me My family does things for fun together
Psychological Control <sup>b</sup>	When I get a poor grade in school, my parents make my life miserable My parents act cold and unfriendly if I do something they don't like When I get a poor grade in school, my parents make me feel guilty
Behavior Control <sup>c</sup>	How much do your parents try to know what you do with your free time? How much do you parents try to know where you are most afternoons after school? How much do you parents really know what you do with your free time?
Communication <sup>d</sup>	How often is your parent a good listener How often do you discuss problems with your parent How often do you think you can tell your parent how you really feel about some things How often can you let your parent know what is bothering you

*Table continues*

Construct	Measurement Item
Beliefs about Aggression <sup>c</sup>	<p>In general, it is wrong to hit other people</p> <p>If you're angry, it is okay to say mean things to other people</p> <p>In general, it is okay to yell at others and say things back</p> <p>It is usually okay to push or shove other people around if you're mad</p> <p>It is wrong to take it out on others by saying mean things when you're mad</p> <p>It is generally wrong to get into physical fights with others</p> <p>In general, it is okay to take your anger out on others by using physical force</p>
Bully Behavior <sup>a</sup>	<p>I like to make others scared of me (and) I like to get into a fight with someone I can easily beat</p> <p>I like to show others I'm the boss (and) I enjoy upsetting wimps</p> <p>I give weaker kids a hard time (and) I am part of a group that goes round teasing others</p>
Victim Behavior <sup>a</sup>	<p>I get called names by others</p> <p>I get picked on by others</p> <p>Others leave me out of things on purpose</p> <p>Others make fun of me</p>
Prosocial Behavior <sup>a</sup>	<p>I like to help people who are being harassed</p>

*Note.* <sup>a</sup>Four-point scale from *never* to *very often*. <sup>b</sup>Four-point scale from *strongly agree* to *strongly disagree*. <sup>c</sup>Three-point scale from *don't try or know to try or know a lot*. <sup>d</sup>Five-point scale from *almost never* to *almost always*. <sup>e</sup> Four-point scale from *perfectly okay* to *really wrong*.

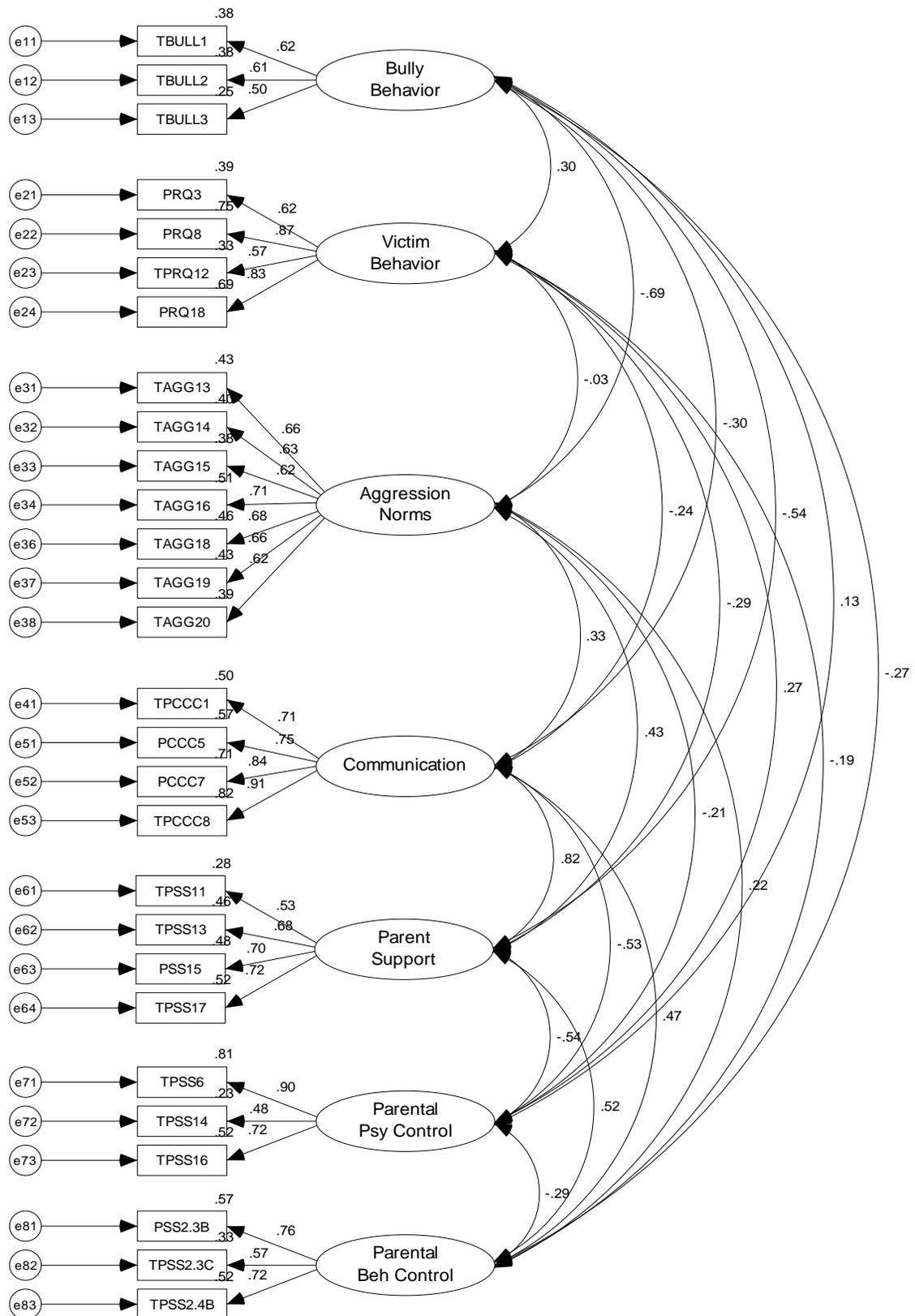


Figure 4. Results for the final measurement model.

### Test of the Proposed Structural Models

Two models were tested using SEM procedures. The first model examined potentially important theoretical relations among latent variables which contribute to bullying, victimization and prosocial behavior; the second model examined latent variables which contribute to the effectiveness of parent and child problem-solving strategies in hypothetical bullying situations.

**Model 1.** To test the plausibility of the proposed model comprising the latent variables of Parent Support, Psychological Control, Behavior Control, Internalizing, Externalizing, and Adaptive Behavior, Beliefs about Aggression, Parent-Child Communication, and Bullying, Victimization, and Prosocial Behaviors, SEM procedures based on the analyses of covariance structures were used.

The chi-square and the fit statistics for the first proposed model are summarized in Table 11 and the coefficients for the hypothesized paths are displayed in Table 12. While this model fit the data reasonably well (the NNFI, IFI, and CFI were in the acceptable range, the RMSEA was within the good range, the SRMR was below the acceptable benchmark, and the Normed Chi-square was relatively low), several hypothesized paths were not significant.

The following paths were statistically significant: Parent Support positively predicted Communication ( $\beta = .79, p < .001$ ). Parent Support positively predicted Disapproval of Aggression ( $\beta = .46, p < .01$ ). Parent Support negatively predicted Internalization ( $\beta = -.59, p < .001$ ) and Externalization ( $\beta = -.74, p < .001$ ). Parental Support positively predicted Adaptive Behavior ( $\beta = .76, p < .001$ ).

.001). Psychological Control positively predicted Internalization ( $\beta = .18, p < .05$ ). Communication positively predicted Victim Behavior ( $\beta = .54, p < .01$ ). Disapproval of Aggression negatively predicted Bully Behavior ( $\beta = -.56, p < .001$ ) and positively predicted Prosocial behavior ( $\beta = .20, p < .05$ ).

Since not all the constructs significantly predicted the constructs they were hypothesized to predict, the structural model was revised to include only the statistically significant paths. Several constructs were removed. First, Parent Behavior Control was removed as it did not significantly predict any of the mediating constructs. Second, Psychological Control was removed because it only significantly predicted Internalization (which did not significantly predict Bully, Victim, or Prosocial Behavior). Third, Internalization, Externalization, and Adaptive Behavior were removed since they did not significantly predict Bully, Victim, or Prosocial Behavior.

Table 11

*Chi-square Statistic and Fit Indices for the Structural Model*

Index	Proposed
Chi-square	570.48
Degrees of freedom	425.00
Sig.	.00
Normed chi-square	1.34
Non-normed fit index (NNFI)	.92
Incremental fit index (IFI)	.94
Comparative fit index (CFI)	.93
Root mean squared error (RMSEA)	.05
Lower bound of 90 percent confidence interval	.04
Upper bound of 90 percent confidence interval	.05
Standardized root mean squared residual (SRMR)	.06

Table 12

*Maximum Likelihood Estimates for the Hypothesized Paths of the Proposed Structural Model*

Path	B	SE	Beta	C.R.
Parent Support to:				
Communication	.29	.06	.79	5.31 ***
Aggression norms	.34	.11	.46	3.14 **
Internalization	-.05	.01	-.59	-4.61 ***
Externalization	-.04	.01	-.74	-3.83 ***
Adaptive behavior	2.95	.54	.76	5.50 ***
Psychological Control to:				
Communication	-.19	.16	-.10	-1.23
Aggression norms	.21	.41	.06	.50
Internalization	.07	.03	.18	2.07 *
Externalization	-.02	.03	-.09	-.72
Adaptive behavior	-1.19	1.65	-.06	-.72
Behavior Control to:				
Communication	.03	.16	.02	.18
Aggression norms	-.01	.42	-.00	-.03
Internalization	.05	.04	.14	1.50
Externalization	.00	.03	.00	.01
Adaptive behavior	-1.52	1.71	-.08	-.89

*Table Continues*

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

Path	B	SE	Beta	C.R.
Communication to:				
Bully Behavior	.05	.04	.26	1.19
Victim Behavior	.23	.09	.54	2.66 **
Prosocial Behavior	.26	.14	.32	1.87
Beliefs about Aggression to:				
Bully Behavior	-.05	.01	-.56	-4.51 ***
Victim Behavior	.04	.02	.17	1.93
Prosocial Behavior	.08	.04	.20	2.09 *
Internalization to:				
Bully Behavior	-.04	.10	-.05	-.37
Victim Behavior	1.11	1.09	.55	1.02
Prosocial Behavior	1.03	.91	.27	1.13
Externalization to:				
Bully Behavior	1.28	.70	.94	1.84
Victim Behavior	1.71	1.01	.52	1.70
Prosocial Behavior	1.23	1.33	.20	.93
Adaptive Behavior to:				
Bully Behavior	.00	.06	.22	.63
Victim Behavior	-.01	.02	-.33	-.70
Prosocial Behavior	.08	.01.	.06	.49

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

The trimmed model exhibited an improvement in fit over its predecessor, as depicted in Figure 5. The chi-square and the fit statistics are summarized in Table 13. The change in chi-square yielded a significantly improved and better fitting model. Overall, this model fit the data well: the NNFI, IFI, and CFI were in the acceptable range, the RMSEA was within the good range, the SRMR was below the acceptable benchmark, the Normed Chi-square was relatively low, and all path coefficients were statistically significant and in the predicted direction.

Table 13

*Chi-square Statistic and Fit Indices for the Revised Structural Model*

Index	Revised Model
Chi-square	301.10
Degrees of freedom	221.00
Sig.	.00
$\Delta$ Chi-square	269.38
$\Delta$ Degrees of freedom	204.00
Sig.	.00
Normed chi-square	1.36
Non-normed fit index (NNFI)	.94
Incremental fit index (IFI)	.95
Comparative fit index (CFI)	.94
Root mean squared error (RMSEA)	.05
Lower bound of 90 percent confidence interval	.03
Upper bound of 90 percent confidence interval	.06
Standardized root mean squared residual (SRMR)	.06

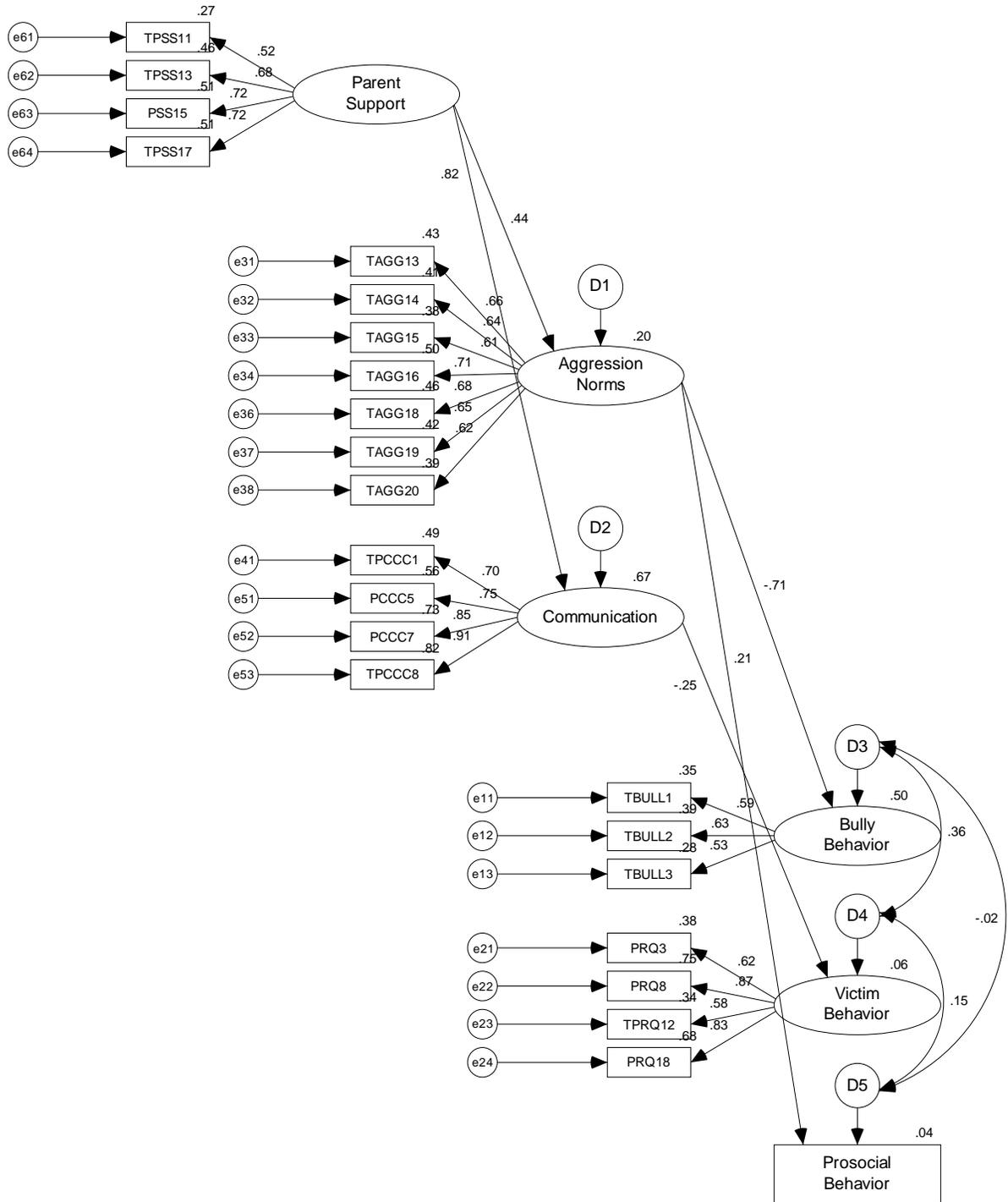


Figure 5. Results for the revised structural model depicting Parent Support and Bully, Victim, and Prosocial Behavior.

To examine whether there were direct as well as indirect effects between Parent Support and Bully Behavior, Victim Behavior and Prosocial Behavior, direct effects paths were added between Parent Support and the three endogenous variables. As shown in Table 14, the chi-square and fit statistics are comparable to the fit indices in the model depicting only indirect effects (refer Table 13). The maximum likelihood estimates for the hypothesized paths with direct effects are depicted in Table 15. There was a significant negative relationship between Parent Support and Bully Behavior, but no significant direct effects between Parent Support and Victim or Prosocial Behavior.

Table 14

*Chi-square Statistic and Fit Indices for Parent Support's Direct Effects on the Endogenous Variables*

Index	Revised Model
Chi-square	300.59
Degrees of freedom	220.00
Sig.	.00
Normed chi-square	1.37
Non-normed fit index (NNFI)	.93
Incremental fit index (IFI)	.95
Comparative fit index (CFI)	.94
Root mean squared error (RMSEA)	.05
Lower bound of 90 percent confidence interval	.03
Upper bound of 90 percent confidence interval	.06
Standardized root mean squared residual (SRMR)	.06

Table 15

*Maximum Likelihood Estimates for the Hypothesized Paths of the Structural Model with Parent Support and its Direct Effects on Bullying*

Path	B	SE	Beta	C.R.
Parent Support to Beliefs about Aggression	.12	.03	.42	4.16 ***
Parent Support to Communication	1.65	.20	.81	8.41 ***
Parent Support to Bully Behavior	-.01	.00	-.22	-2.02 *
Parent Support to Victim Behavior	-.02	.03	-.15	-.80
Parent Support to Prosocial Behavior	.01	.02	.06	.60
Beliefs about Aggression to Bully Behavior	-.07	.02	-.60	-4.13 ***
Beliefs about Aggression to Prosocial Behavior	.12	.07	.17	1.85
Communication to Victim Behavior	-.01	.01	-.14	-.79

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

Although the trimmed model fit the data well, important theoretical constructs of interest were lost when Behavior Control and Psychological Control were removed. So, a new variable was created by dividing the cases according to the three constructs of Parent Support, Behavior Control, and Psychological Control and then organizing them in low, moderate, and high groups. Thus, 27 values in all were defined and cases were classified according to these combinations to test the theory that high levels of parent support and behavioral control, and low levels of psychological control is an optimal combination of

parenting dimensions that comprise parenting styles. Refer to Table 16 to see how this variable was created.

Table 16

*Subtypes of parenting dimensions for new parent variable*

Support Beh Psych	Support Beh Psych	Support Beh Psych
low high high	mod low high	high low high
low high mod	mod low mod	high low mod
low high low	mod high high	high high high
low mod high	mod mod high	high mod high
low mod mod	mod high mod	high high mod
low mod low	mod mod mod	high mod mod
low low high	mod low low	high low low
low low mod	mod mod low	high mod low
low low low	mod high low	high high low

The new Parenting construct was substituted in place of the Parent Support construct in the proposed model (refer to Figure 6) and the fit was comparable with the previous model as shown in Table 17.

Table 17

*Chi-square Statistic and Fit Indices for the Structural Model with the Parenting Variable*

Index	Value
Chi-square	221.82
Degrees of freedom	162.00
Sig.	.00
Normed chi-square	1.37
Non-normed fit index (NNFI)	.94
Incremental fit index (IFI)	.95
Comparative fit index (CFI)	.95
Root mean squared error (RMSEA)	.05
Lower bound of 90 percent confidence interval	.03
Upper bound of 90 percent confidence interval	.06
Standardized root mean squared residual (SRMR)	.06

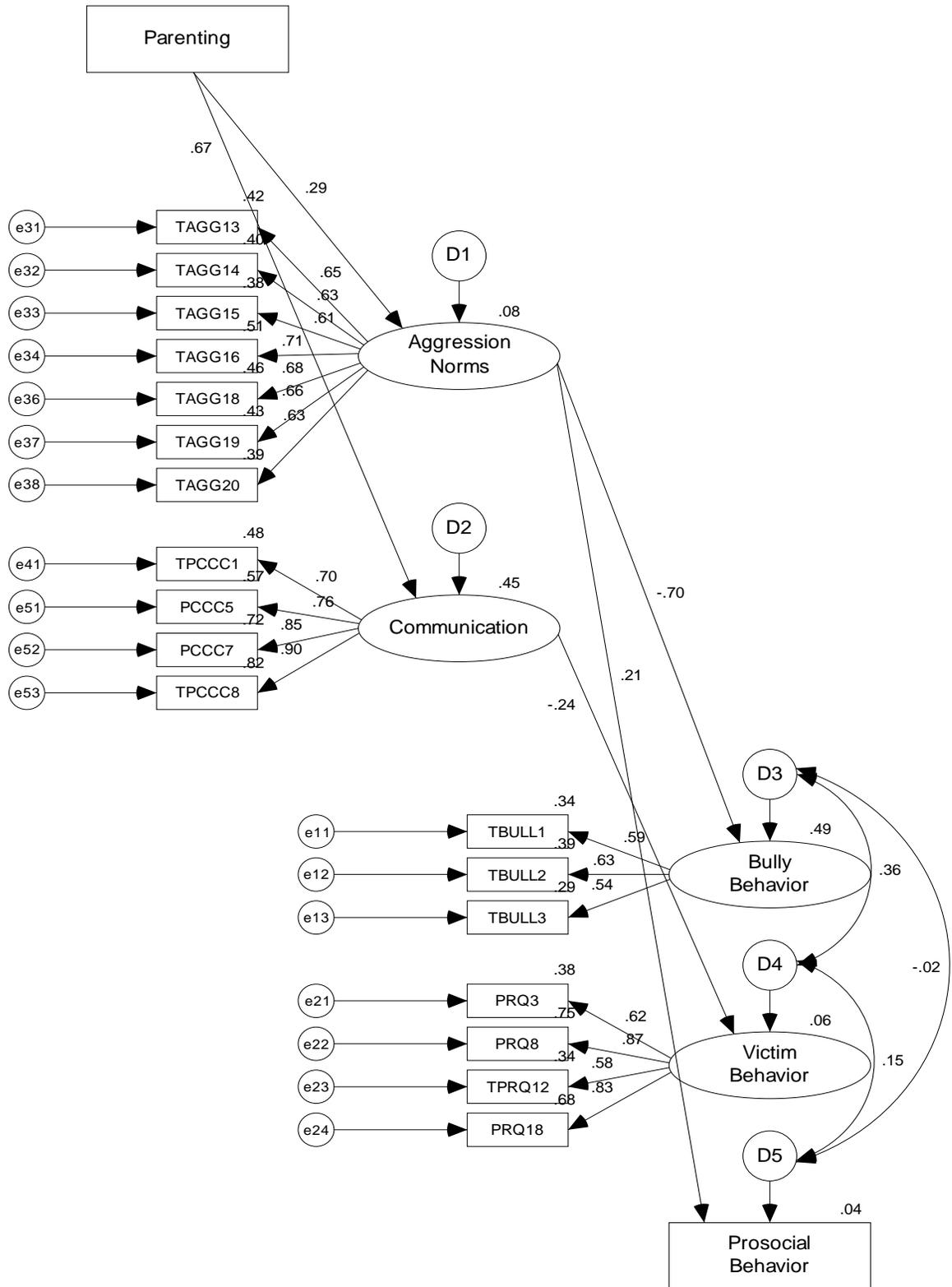


Figure 6. Results for the revised structural model depicting Parenting and Bully, Victim, and Prosocial Behavior.

**Model 2.** To explore the contribution of parenting to beliefs about aggression, parent-child communication and effectiveness of strategies when confronted with bullying situations, a second model was tested using effectiveness of strategies in hypothetical situations as endogenous variables. First, a model was run using Parent Support and Psychological Control (Behavior Control did not significantly predict any of the endogenous variables and so was excluded from these analyses). The results for the structural model are depicted in Figure 7. The chi-square and the fit statistics are summarized in Table 18. This model fits the data well: the NNFI, IFI, and CFI were in the acceptable range, the RMSEA was within the acceptable range, the SRMR was below the acceptable benchmark, and the Normed Chi-square was low.

Table 18

*Chi-square Statistic and Fit Indices for the Structural Model with Parent Support and Psychological Control*

Index	Value
Chi-square	384.77
Degrees of freedom	290.00
Sig.	.00
Normed chi-square	1.33
Non-normed fit index (NNFI)	.94
Incremental fit index (IFI)	.94
Comparative fit index (CFI)	.94
Root mean squared error (RMSEA)	.05
Lower bound of 90 percent confidence interval	.03
Upper bound of 90 percent confidence interval	.06
Standardized root mean squared residual (SRMR)	.06

The following paths were statistically significant: Parent Support positively predicted Beliefs about Aggression; Parent Support positively predicted Communication; and Communication positively predicted Child Strategy Effectiveness. The maximum likelihood estimates for the paths of this model are depicted in Table 19.

Table 19

*Maximum Likelihood Estimates for the Hypothesized Paths of the Structural Model with Parent Autonomy and Parent Support*

Path	B	SE	Beta	C.R.
Parent Support to Aggression norms	.13	.04	.44	3.45 ***
Parent Support to Communication	1.57	.25	.78	6.43 ***
Psychological Control to Aggression norms	.05	.33	.02	.14
Psychological Control to Communication	-2.32	1.75	-.12	-1.33
Aggression norms to Communication	-.30	.53	-.04	-.56
Communication to Parent Strategy	-.01	.01	-.11	-1.23
Aggression norms to Child Strategy	.07	.05	.14	1.43
Communication to Child Strategy	.02	.01	.27	2.62 **

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

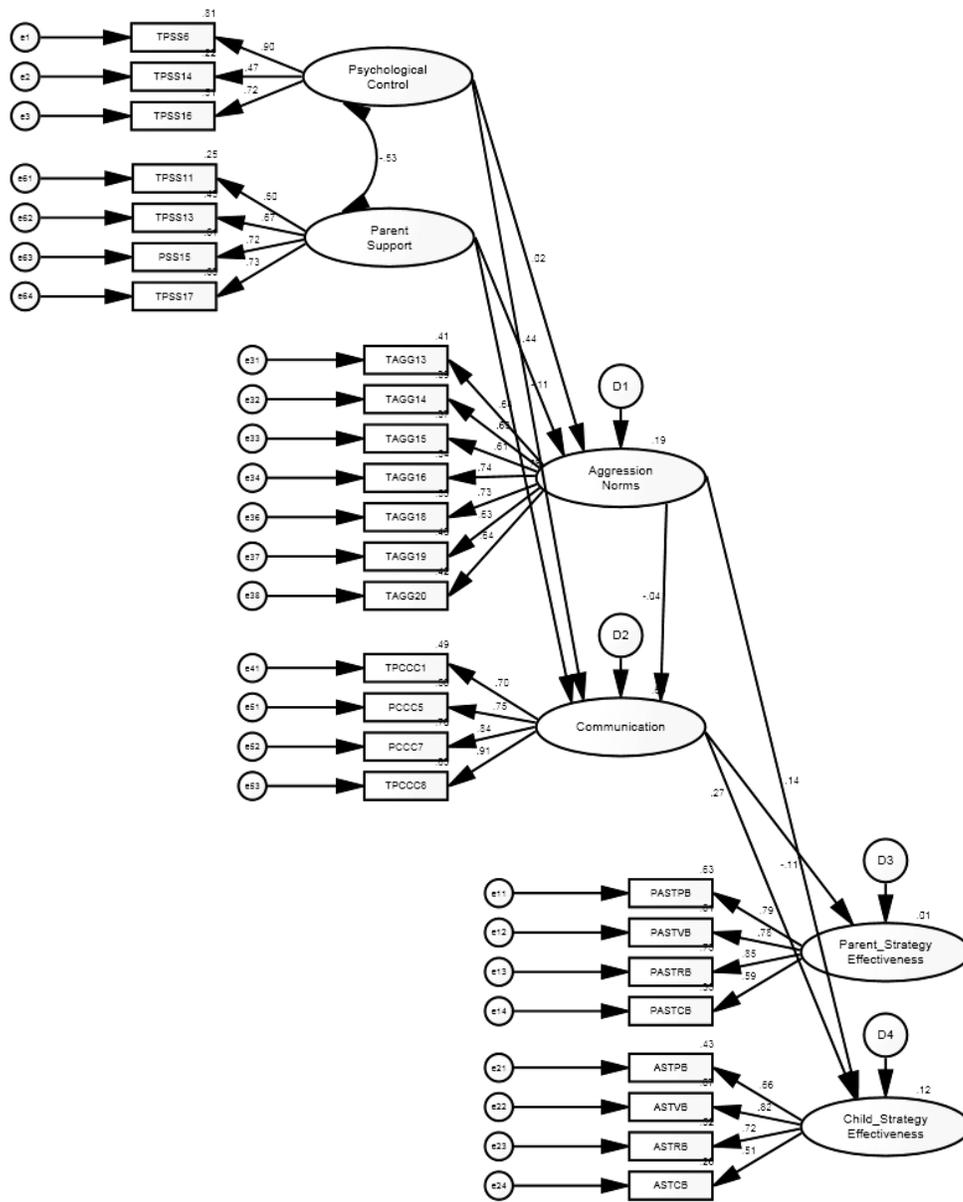


Figure 7. Results for the revised structural model depicting Parent Support, Psychological Control and Parent and Child Strategy Effectiveness in Hypothetical Bullying Situations.

Finally, to test the hypothesis that Support, Behavior Control, and Psychological Control combine uniquely to predict effectiveness of strategies in bullying situations, a model using the Parenting construct was run. The results for the structural model are depicted in Figure 8. The chi-square and the fit statistics are summarized in Table 20. This model fit the data well: the NNFI, IFI, and CFI were in the acceptable range, the RMSEA was within the acceptable range, the SRMR was below the acceptable benchmark, and the Normed Chi-square was low.

Table 20

*Chi-square Statistic and Fit Indices for the Structural Model with Parenting*

Index	Value
Chi-square	242.97
Degrees of freedom	164.00
Sig.	.00
Normed chi-square	1.47
Non-normed fit index (NNFI)	.93
Incremental fit index (IFI)	.94
Comparative fit index (CFI)	.94
Root mean squared error (RMSEA)	.06
Lower bound of 90 percent confidence interval	.04
Upper bound of 90 percent confidence interval	.07
Standardized root mean squared residual (SRMR)	.06

The following paths were statistically significant: Parenting positively predicted Beliefs about Aggression; Parenting positively predicted

Communication. Beliefs about Aggression positively predicted Communication and Communication positively predicted Child Strategy Effectiveness.

The maximum likelihood estimates for the paths of the Parenting model are shown in Table 21.

Table 21

*Maximum Likelihood Estimates for the Hypothesized Paths of the Structural Model with Parenting*

Path	B	SE	Beta	C.R.
Parenting to aggression norms	.04	.01	.28	3.18 ***
Parenting to communication	.60	.06	.64	9.32 ***
Aggression norms to communication	.98	.48	.15	2.03 *
Communication to child strategy	.02	.01	.26	2.52 *
Aggression norms to child strategy	.07	.05	.14	1.43
Communication to parent strategy	-.01	.01	-.10	-1.14

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

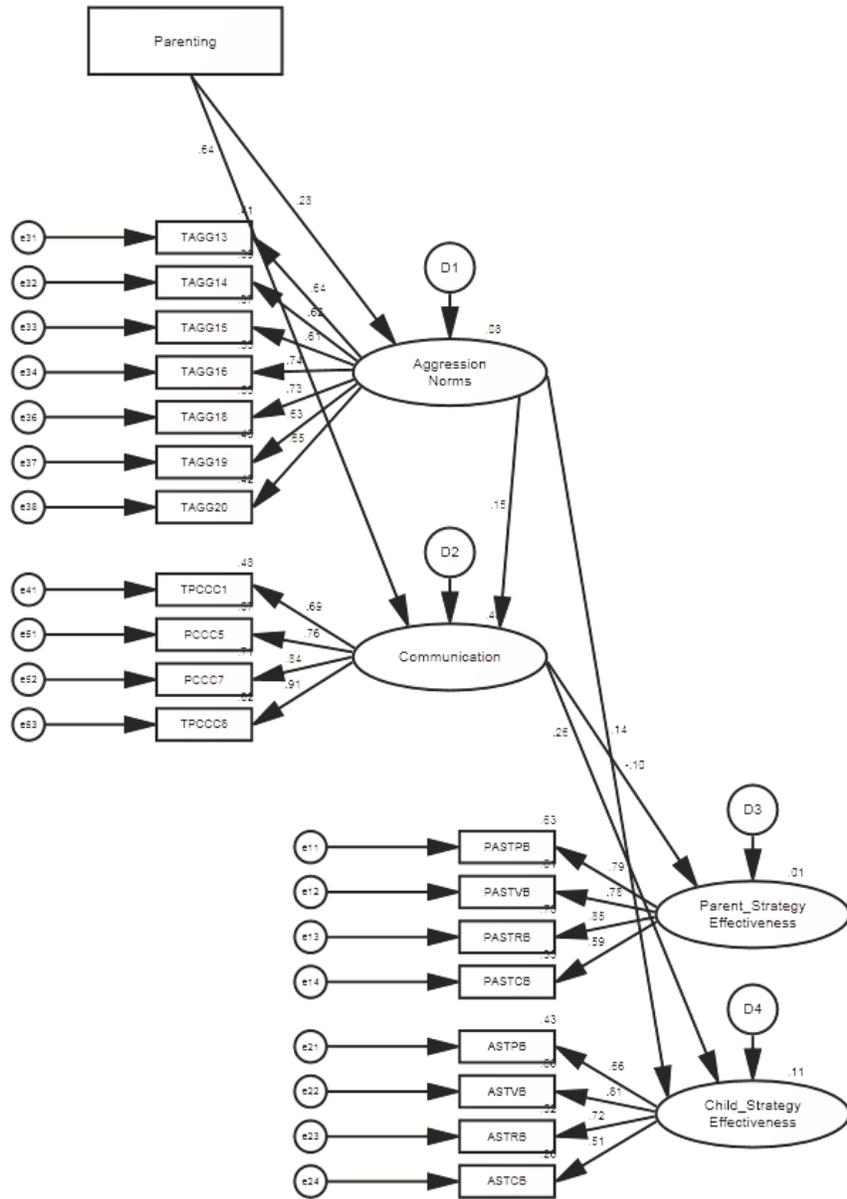


Figure 8. Results for the revised structural model depicting Parenting and Child Strategy Effectiveness in Hypothetical Bullying Situations.

### Discussion

The present study extends previous work by examining the separate contributions of parental support, behavior control, and psychological control on adolescents' bullying, victimization, and prosocial behavior and parents' and adolescents' problem-solving strategies. It has been long established that authoritative parenting is beneficial to youth outcomes. However, this study sought to separate authoritative parenting into its component parts: parent support (i.e., warm, supportive relationships), behavior control (i.e., parental knowledge of activities and high standard setting for behavior), and psychological control (i.e., guilt inducing, intrusive demands on behavior). The data for the present sample did not support the initial model as neither behavioral control nor psychological control was shown to have significant effects on the outcome variables. Consequently, both were excluded from the initial model. Likewise, externalizing, internalizing, and adaptive behaviors were removed from the model as they did not significantly contribute to the overall fit of the data. Parental support was found to be significantly and negatively related to bullying and victimization behavior and positively related to prosocial behavior and to effective adolescent problem-solving when youth were confronted with bullying situations. Results indicated that when adolescents experience their parents as accepting and supportive, they are less likely to believe that using aggression is an appropriate way to solve bullying problems, they are more likely to communicate with their parents about social issues they are encountering, and in turn, they are less likely to engage in bullying and victimization behavior and more likely to

engage in prosocial behavior. Likewise, adolescents who experience high levels of support from their parents are more likely to employ effective problem-solving strategies when confronted with bullying situations. The finding that warm, supportive parenting predicts positive behavior outcomes in adolescents is consistent with the Grusec and Goodnow (1994) premise: Children are more likely to process parents' messages and internalize parents' requests for desirable behavior when they perceive their parents as positive and supportive. In addition, parents who are supportive are likely to model constructive ways to solve interpersonal conflict and inappropriate behavior. The current study provides support for the widening body of evidence that adolescent development which occurs in the context of close parent-child relationships with warm and involved parents leads to the most adaptive outcomes.

A central dilemma to parenting (especially for parents of adolescents) is finding the balance between allowing children the freedom to explore and experiment, and protecting them from experiences that are clearly dangerous. With young children, it is relatively easy to place gates at tops of stairs and covers on electrical sockets. With adolescents, although it is important to foster independence and allow them to make their own choices, the degree of limits and amount of control parents can reasonably exert is not so straightforward. To navigate the transition between childhood and adolescence, parents have to relinquish some of their control while maintaining a relationship with their growing children that will allow them to continue to exert influence.

Contrary to expectations, in this sample of parents and adolescents, neither behavioral control, nor psychological control was found to be related to any of the outcome variables in the multivariate analyses. Although both forms of control significantly predicted outcomes of interest in the initial regressions, these paths did not hold when testing the models. The lack of significance for these forms of control may be due to measurement issues.

In terms of behavior control, for this sample of early adolescents, behavioral control was defined and operationalized as attention to and tracking of the child's whereabouts and activities. This definition of behavioral control is based on the assumption that if parents know about their children's associations, they will be aware if inappropriate associations and behaviors develop (Stattin & Kerr, 2000; 2010). However, Stattin and Kerr's research shows that it is not surveillance that provides parents with knowledge to prevent and intervene when they notice undesirable behavior; rather, it is open communication and child disclosure that tells parents when they need to step in and help their adolescents.

When considering how adolescents treat or are treated by their peers, perhaps parent monitoring about what children do with their free time is an inadequate measure of behavior control. It might be better to question how parents set limits on their adolescents' behavior and to examine what adolescents choose to disclose to their parents and under what circumstances they will disclose information. Tilton-Weaver, Kerr, Pakalniskeine, Tokic, Salihovic, and Stattin (2010) showed that coldness, rejection and negative relationships affect youths' level of disclosure and Daddis and Randolph (2010) found that trusting

relationships are important. Thus, parents' tracking of adolescents' activities probably has little effect on how adolescents treat their peers. Instead, limit setting by parents and warm, close relationships between parents and adolescents may lead to positive interactions among peers.

Studies that include the variable of parent psychological control (e.g., Barber, 1996, Garber et al., 1997, Galambos et al., 2003) suggest that psychological control contributes to both internalizing problems because the parent intrudes into the adolescent's own sense of self and to externalizing problems such as delinquency. In the current sample, psychological control was not found to be independently related to bullying, victimization, prosocial behavior, or to the effectiveness of problem solving. It is possible that the impact of psychological control may depend on the other two dimensions of parenting (behavior control and support). For example, Pettit and Laird (2002) found that high levels of psychological control were associated with delinquent behavior only when parental involvement was low. Galambos et al. (2003) suggested that high psychological control is particularly developmentally inappropriate and intrusive when combined with high behavioral control reflecting parents' attempts at over-management of their adolescents.

Because the data did not support the inclusion of the three separate parenting dimensions, a new variable was created in order to determine whether an optimal combination of support, behavioral control and psychological control constitute authoritative parenting. Results from the models that included the parenting variable support the hypothesis that high levels of support, moderate to

high levels of behavioral control, and low levels of psychological control positively predict prosocial behavior, negatively predict bullying and victimization, and positively predict effective problem-solving strategies when adolescents are faced with bullying situations.

Current theories of child development recognize that parenting is a bidirectional, dynamic process (Smith, 2010) whereby children influence parents' behavior depending on the individual child's characteristics and behavior. For example, findings from Simons, Chao, Conger, and Elder (2001), reveal that parenting behaviors may become more controlling when adolescents engage in deviant activity and parents adjust their parenting behaviors in response to their early adolescents' behaviors. In the present study, an attempt was made to consider children's externalizing, internalizing, and adaptive behavior as part of what may lead to both communication issues with parents and social difficulties with peers. However, although the initial regression equations did lend support for the idea that lower support and higher behavior control is associated with externalizing and bullying behavior and lower support and higher psychological control is associated with internalizing and victimization behavior. these parameters were excluded from model testing as they did not significantly contribute to the overall fit of the data. Further research is warranted, perhaps with a larger and more diverse sample, to capture these elements and how they contribute to the dynamic relationship between parents and children.

As previous research has demonstrated (Boulton, Bucci, & Hawker, 1999; Huesmann & Guerra, 1997; Murray-Close & Crick, 2006), individuals' beliefs

about aggression are associated with aggressive behavior. In this study, adolescents who believed that the use of aggression was inappropriate were less likely to engage in bullying behavior and less likely to suggest aggressive strategies to solve hypothetical situations. However, it was not possible to determine whether parents and adolescents develop common norms and attitudes about aggression and whether aggression is appropriate to use to solve social problems because the scale used to measure parents' attitudes was excluded from analyses due to low reliability.

The parent-child relationship and developmental dynamics that occur as families move through childhood and adolescence unfold over time. Unlike early childhood where parents can actively supervise their children's interactions with others, during adolescence, communication is an important aspect of the parent-child relationship so that parents are knowledgeable about and have opportunities to influence their children's behavior. In the current sample, parent-child communication was negatively associated with bullying and victimization behavior and positively associated with prosocial skills and with effective problem-solving strategies when confronted with possible bullying situations. In early childhood, parents are able to exert a stronger influence in determining with whom their children associate, for example, organizing play dates; in adolescence, however, parents have less opportunities to view peer interactions directly, and peer associations can move beyond the realm of parents' influence. Results from this study support the importance of open communication in early adolescence so parents may continue to hold influence in their children's peer relationships.

As expected, parental support was found to be significantly and positively related to adolescents' use of effective strategies when confronted with hypothetical bullying situations. As Dodge (2002) suggests, it is possible that through warm, supportive relationships, parents model how children behave in peer situations. The parenting variable, which combined optimal levels of support, behavioral control, and psychological control was also found to be significantly and positively related to parents' use of effective strategies when advising their children what to do in hypothetical situations which lends support to the growing body of research that suggests children model their parents' actions, or at least share some of the same knowledge and behaviors about how to solve conflict in bullying situations.

### **Limitations**

Several limitations of the current study should be acknowledged. First, the low response rate and selective nature of the sample (only students who agreed and who had written consent from their parents to participate were included in the study) limits the extent to which the results may be generalized. Second, although the questionnaires used in this study were selected on the basis of previous research, some criticism of the selected questionnaires is necessary. Although the parental attitude toward bullying questionnaire selected from previous research (Eslea & Smith, 2000) indicated acceptable reliability, in the current sample, coefficient alphas yielded unusable results. Likewise, with self-reports of bullying, results may be subject to social desirability bias. In addition, the use of child self-reports to measure parenting behaviors may have contributed to

inflation of parameter estimates as a result of method variance effects. Yet, Steinberg et al. (1992) justify using reports about parenting from a single source (i.e., the adolescent) for three reasons: (1) parental self-reports tend to exaggerate parental acceptance and firm discipline and can be unreliable; (2) children's perceptions of their parents' behavior are as important influences on their development as are parents' actual behavior; and (3) given the desired sample size, in order to collect data using questionnaires, the chances of obtaining data from disengaged parents could lead to sampling bias. Third, and notably, most current theories of child adjustment acknowledge transactional processes whereby parents and children influence one another, yet in the present model, a unidirectional link from parent to child was posited. Finally, although the sample size in this study is appropriate given recommendations (Kline, 2005), and other fit indices (Normed Chi-square, NNFI, IFI, CFI, RMSEA, SRMR) indicated a good fit between the data and the model, chi-square is very sensitive to sample size, and statistical power would be improved with a larger sample.

### **Implications and Conclusion**

These limitations notwithstanding, the results of this study have important implications for future empirical and practical work. This study involved a quantitative research method to study students' experiences and strategies to deal with bullying and their parents' knowledge and skills in dealing with bullying. Importantly, these results have been interpreted from a developmental psychological framework that examines the impact of parenting on parent-child

relationships and children's social conflict and bullying issues during adolescence.

Future research which examines parenting and bullying could include longitudinal investigations to ascertain whether relationships established in early childhood impact the parent-child relationship and child behavior in the adolescent years. Further studies that assess the quality of the parental relationship and how parents and adolescents communicate with one another may provide insight into how youth develop differing roles in bullying and victimization situations. It is somewhat artificial to categorize children as solely bullies and solely victims. In fact, evidence from the current data suggest the same students who identify themselves as victims also identify themselves as bullies depending on the context (Rinaldi, Boechler, & Muth, 2011). These findings suggest that the role of bullies and victims be considered as simultaneous rather than dichotomous and that this phenomenon be further investigated.

The way adolescents consult with their parents about how to manage conflict, deal with bullying issues, and identify solutions to interpersonal problems extends existing literature on parents' effects on children's problem-solving strategies in bullying situations. Parents are expected to be supportive for their adolescents, but in order for them to do so, they need to be knowledgeable about bullying prevention and approachable to their children. With this information, prevention and intervention strategies for schools and family-community agencies can be developed and prepared for evaluation in future research. Community agencies which offer programs for parents of early

adolescents can advise parents of the need to find a balance between behavior control, psychological control, and support at this important stage in child development. Parenting programs could emphasize the importance of maintaining structure and rules in the home, keeping open communication to maintain an awareness of adolescents' behavior and whereabouts without imposing on their thoughts and feelings, and all the while being warm and emotionally available to them

Findings from this study suggest that, from a developmental perspective, support is the most important parenting dimension during adolescence. Early adolescence is often perceived as a time to back off and let them be autonomous, but this may be one of the most crucial times when young teens can really use age-appropriate support. During early childhood, parents are able to observe and intervene during playground transgressions. These are the years that parents may shape their children's behavior by providing the right balance of support, behavior control and psychological control. During early adolescence, parents must rely on their teens to tell them about their social interactions. Only through a warm, supportive relationship can parents establish channels of communication, set and model high standards for social behavior that their children want to meet, and keep open doors so their children can come to them when they need help with their peers.

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Appendix A  
Information Letter

October, 2008

Dear Parent or Guardian:

I am a professor in the Department of Educational Psychology at the University of Alberta and am writing to ask for your participation in a study on how parents can make a difference in bullying prevention and intervention. I am looking for grades 7 and 8 students and one of their parents to participate. I will briefly explain the purpose of the study below.

I am interested in finding out about how much parents know about their children's involvement in bullying situations as bullies, victims, or bystanders and about how parents' and children's attitudes toward bullying affect children's involvement in bullying situations at school. I am also interested in examining how parenting influences the development of bullying or victimization behavior in adolescents. I am especially interested in how children and parents communicate with each other to solve physical, verbal, relational, and cyberbullying situations.

If you choose to participate in this study, you and your child will be asked to complete some questionnaires that assess both students' and parents' self-reports of bullying experiences (including cyberbullying), attitudes toward bullying, and parent-child communication practices. To assess adolescents' perceptions of parenting styles, children will complete a parenting style scale. To evaluate skills and knowledge in dealing with bullying situations, both parents and children will fill out open-ended problem solving tasks based on scenarios dealing with different types of bullying. You may provide permission for your child to participate in this study even if you do not wish to participate in the parent portion of the study.

A trained doctoral student will visit your child's class where your child will complete the student questionnaires. The estimated time for students to complete these measures will be broken down into two class periods. Your child's principal has granted permission for us to conduct research in your child's school.

The Research Ethics Board requires me to tell you how I will use and store the information I collect from you and your child. The information I collect will be analyzed by me, or a member of my research team. The data will be used by one of my doctoral students, Tracy Muth, for her PhD dissertation. No one else will have access to any information I collect. The information will be stored in a locked room and will be shredded once it is no longer being used. The results of this study for the group of families as a whole may be presented or discussed publicly or published. Your family and any information you provide will not be identifiable.

In my experience, families find participating in this type of study to be informative. It is an opportunity for moms and dads to learn more about their children and their social relationships at school. In order to reduce existing bully problems in and out of the school setting and to prevent the development of new problems, adults at school and at home must be aware of the extent of the problem. This school-based research that involves both students and parents will provide opportunities for teachers, administrators, parents and students to work together to identify issues and strategies for maintaining a safe and caring environment in the schools. Since participation is completely voluntary, you and your child may withdraw from the study at any time.

The plan for this study has been reviewed for its adherence to ethical guidelines and approved by the Faculties of Education, Extension and Augustana Research Ethics Board (EEA REB) at the University of Alberta. For questions regarding participant rights and ethical conduct of research, contact the Chair of the EEA REB at XXX- XXX-XXXX.

Once the study is completed you will receive a summary of the general findings. One of my research assistants or I am available for one-on-one feedback sessions if you wish to have more detailed information.

Participating in this study may:

1. Lead to greater awareness of how much bullying is taking place at your child's school and on the Internet.
2. Increase parents' knowledge about their own and their child's strengths in the area of social problem solving, as well as identify areas that may require attention.
3. Provide an opportunity for adults (parents and school staff) to work together in counteracting bully problems

Having your family's participation in this project will help me gain a better understanding of the importance of parent-child relations in counteracting bullying problems. As a token of appreciation, families who have both children and one parent participate will receive a \$25 Chapters gift card. If you have any questions or concerns please do not hesitate to contact me at XXX-XXX or through email at xxx@ualberta.ca, or contact my research assistant Tracy Muth (xxx.@ualberta.ca or XXX-XXXX). Please complete the attached consent form and return it to your child's teacher.

I thank you for your time and consideration.

Sincerely,

Christina Rinaldi, PhD, RPsych

Appendix B  
Consent Forms

**PARENT CONSENT FORM**

**(Two copies: one to be kept by the participant,  
and one signed and returned to the researcher)**

I \_\_\_\_\_, hereby  
(print name of Mother/Father – please circle one)

- Consent  
 Do not consent

to allow my child \_\_\_\_\_  
(print name of child)

to participate in this study. I understand that participation involves the following activities:

- During class time, my child will complete questionnaires relating to bullying, parenting styles, parent-child communication practices, and social problem-solving strategies

I \_\_\_\_\_, hereby  
(print name of Mother/Father – please circle one)

- Consent  
 Do not consent

to participate in this study. I will complete questionnaires relating to bullying, parent-child communication practices and social problem-solving strategies.

I understand that

- My family may withdraw from the research at any time without penalty
- All information gathered will be treated confidentially and used for the sole purpose of research
- Any information that identifies my family will be destroyed upon completion of this research
- My family will not be identifiable in any documents resulting from this research

I also understand that the results of this research will be used only in the following cases:

- Presentations and written articles for other developmental researchers, educators, parents, and schools
- General feedback sessions with individual families.

\_\_\_\_\_  
Signature of Parent

\_\_\_\_\_  
Date signed

Please provide us with contact information in the event I need to contact you about your participation in this project.

---

Telephone number

---

email address

For further information concerning the completion of the form, please contact Christina Rinaldi, PhD, University of Alberta, Department of Educational Psychology, Edmonton, AB, T6G 2G5 at XXX-XXX-XXX or my research assistant, Tracy Muth at XXX-XXX-XXXX.

**STUDENT ASSENT FORM**

**(Two copies: one to be kept by the participant,  
and one signed and returned to the researcher)**

I \_\_\_\_\_, hereby  
(print name of student)

- Assent  
 Do not assent

to participate in this study. I understand that participation involves the following activities:

- During class time, I will complete questionnaires relating to bullying, parenting styles, parent-child communication practices, and social problem-solving strategies
- One of my parents/guardians will complete questionnaires relating to bullying, parent-child communication practices and social problem-solving strategies

I understand that

- My family may withdraw from the research at any time without penalty
- All information gathered will be treated confidentially and used for the sole purpose of research
- Any information that identifies my family will be destroyed upon completion of this research
- My family will not be identifiable in any documents resulting from this research

I also understand that the results of this research will be used only in the following cases:

- Presentations and written articles for other developmental researchers, educators, parents, and schools
- General feedback sessions with individual families.

\_\_\_\_\_  
Signature of Student

\_\_\_\_\_  
Date signed

Please provide us with contact information in the event I need to contact you about your participation in this project.

\_\_\_\_\_  
Telephone number

\_\_\_\_\_  
email address

For further information concerning the completion of the form, please contact Christina Rinaldi, PhD, University of Alberta, Department of Educational Psychology, Edmonton, AB, T6G 2G5 at XXX-XXX-XXXX or my research assistant, Tracy Muth at XXX-XXX-XXXX.

Appendix C

Measures

## Student Form

Peer Bullying: An Examination of Parents' and Teens'  
Communication and Knowledge

Thank you for agreeing to participate in this research project. You will be asked to complete a variety of questionnaires that examine parenting, communication, and students' and their parents' attitudes toward and experiences with bullying situations. There are no right or wrong answers so be as honest as you can in your responses. Please be assured that your responses will be treated as confidential and will not be shared with anyone outside our research team.

Consider the following definition of bullying as you complete the questionnaires.

It is bullying, when one child is repeatedly exposed to harassment and attacks from one or several other children; harassment and attacks may be, for example, shoving or hitting the other one, calling him/her names or making jokes about him/her, leaving him/her outside the group, taking his/her things, or any other behavior meant to hurt the other one.

It is not bullying when two students with equal strength or equal power have a fight, or when someone is occasionally teased, but it is bullying when the feelings of one and the same student are intentionally and repeatedly hurt.

**PRQ**

Circle one of the answers underneath each statement to show how often each of the following statements are true of you.

1. I like playing sports.

Never            Once in a while            Pretty Often            Very Often

2. I get good marks in class.

Never            Once in a while            Pretty Often            Very Often

3. I get called names by others.

Never            Once in a while            Pretty Often            Very Often

4. I give weaker kids a hard time.

Never            Once in a while            Pretty Often            Very Often

5. I like to make friends.

Never            Once in a while            Pretty Often            Very Often

6. I act up in class.

Never            Once in a while            Pretty Often            Very Often

7. I feel I can't trust others.

Never            Once in a while            Pretty Often            Very Often

8. I get picked on by others.

Never            Once in a while            Pretty Often            Very Often

9. I am part of a group that goes round teasing others.

Never            Once in a while            Pretty Often            Very Often

10. I like to help people who are being harassed.

Never            Once in a while            Pretty Often            Very Often

11. I like to make others scared of me.

Never            Once in a while            Pretty Often    Very Often

12. Others leave me out of things on purpose.

Never            Once in a while            Pretty Often    Very Often

13. I get into fights at school.

Never            Once in a while            Pretty Often    Very Often

14. I like to show others that I'm the boss.

Never            Once in a while            Pretty Often    Very Often

15. I share things with others.

Never            Once in a while            Pretty Often    Very Often

16. I enjoy upsetting wimps.

Never            Once in a while            Pretty Often    Very Often

17. I like to get into a fight with someone I can easily beat.

Never            Once in a while            Pretty Often    Very Often

18. Others make fun of me.

Never            Once in a while            Pretty Often    Very Often

19. I get hit and pushed around by others.

Never            Once in a while            Pretty Often    Very Often

20. I enjoy helping others.

Never            Once in a while            Pretty Often    Very Often

**NOBAGS**

Instructions: The following questions ask you about whether you think certain behaviors are WRONG or are OK. Circle the answer that best describes what you think. Circle ONE and only one answer.

**Suppose a boy says something bad to another boy, John.**

1. Do you think it's OK for John to scream at him?  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong
2. Do you think it's OK for John to hit him?  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong

**Suppose a boy says something bad to a girl.**

3. Do you think it's wrong for the girl to scream at him?  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong
4. Do you think it's wrong for the girl to hit him?  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong

**Suppose a girl says something bad to another girl, Mary.**

5. Do you think it's OK for Mary to scream at her?  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong
6. Do you think it's OK for Mary to hit her?  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong

**Suppose a girl says something bad to a boy.**

7. Do you think it's wrong for the boy to scream at her?  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong
8. Do you think it's wrong for the boy to hit her?  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong

**Suppose a boy hits another boy, John.**

9. Do you think it's wrong for John to hit him back?  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong

**Suppose a boy hits a girl.**

10. Do you think it's OK the girl to hit him back?  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong

**Suppose a girl hits another girl, Mary.**

11. Do you think it's wrong for Mary to hit her back?  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong

**Suppose a girl hits a boy.**

12. Do you think it's wrong for the boy to hit her back?  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong

13. In general, it is wrong to hit other people.  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong

14. If you're angry, it is OK to say mean things to other people.  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong

15. In general, it is OK to yell at others and say things back.  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong

16. It is usually OK to push or shove other people around if you're mad.  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong

17. It is wrong to insult other people.  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong

18. It is wrong to take it out on others by saying mean things when you're mad.  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong

19. It is generally wrong to get into physical fights with others.  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong

20. In general, it is OK to take your anger out on others by using physical force.  
 It's perfectly OK      It's sort of OK      It's sort of wrong      It's really wrong

**PSS**

Please answer the following set of questions about the parents (or guardians) you live with. If you spend time in more than one home, answer the questions about the parents (or guardians) who have the most say over your daily life.

If you **STRONGLY AGREE** with the statement, put a 4 on the line next to it.  
If you **AGREE SOMEWHAT** with the statement, put a 3 on the line next to it.  
If you **DISAGREE SOMEWHAT** with the statement, put a 2 on the line next to it.  
If you **STRONGLY DISAGREE** with the statement, put a 1 on the line next to it.

- \_\_\_ 1. I can count on my parents to help me out, if I have some kind of problem.
- \_\_\_ 2. My parents say that you shouldn't argue with adults.
- \_\_\_ 3. My parents keep pushing me to do my best in whatever I do.
- \_\_\_ 4. My parents say that you should give in on arguments rather than make people angry.
- \_\_\_ 5. My parents keep pushing me to think independently.
- \_\_\_ 6. When I get a poor grade in school, my parents make my life miserable.
- \_\_\_ 7. My parents help me with my schoolwork if there is something I don't understand.
- \_\_\_ 8. My parents tell me that their ideas are correct and that I should not question them.
- \_\_\_ 9. When my parents want me to do something, they explain why.
- \_\_\_ 10. Whenever I argue with my parents, they say things like, "You'll know better when you grow up."
- \_\_\_ 11. When I get a poor grade in school, my parents encourage me to try harder.
- \_\_\_ 12. My parents let me make my own plans for things I want to do.
- \_\_\_ 13. My parents know who my friends are.
- \_\_\_ 14. My parents act cold and unfriendly if I do something they don't like.
- \_\_\_ 15. My parents spend time just talking with me.
- \_\_\_ 16. When I get a poor grade in school, my parents make me feel guilty.
- \_\_\_ 17. My family does things for fun together.
- \_\_\_ 18. My parents won't let me do things with them when I do something they don't like.

MY FREE TIME

1. In a typical week, what is the latest you can stay out on SCHOOL NIGHTS (Monday-Thursday)?

- I am not allowed out \_\_\_\_\_
- before 8:00 \_\_\_\_\_
- 8:00 to 8:59 \_\_\_\_\_
- 9:00 to 9:59 \_\_\_\_\_
- 10:00 to 10:59 \_\_\_\_\_
- 11:00 or later \_\_\_\_\_
- as late as I want \_\_\_\_\_

2. In a typical week, what is the latest you can stay out on FRIDAY OR SATURDAY NIGHT?

- I am not allowed out \_\_\_\_\_
- before 8:00 \_\_\_\_\_
- 8:00 to 8:59 \_\_\_\_\_
- 9:00 to 9:59 \_\_\_\_\_
- 10:00 to 10:59 \_\_\_\_\_
- 11:00 or later \_\_\_\_\_
- as late as I want \_\_\_\_\_

3. How much do your parents TRY to know...

	Don't try	Try a little	Try a lot
Where you go at night?	_____	_____	_____
What you do with your free time?	_____	_____	_____
Where you are most afternoons after school?	_____	_____	_____

4. How much do your parents REALLY know...

	Don't know	Know a little	Know a lot
Where you go at night?	_____	_____	_____
What you do with your free time?	_____	_____	_____
Where you are most afternoons after school?	_____	_____	_____

**PCC-C**

Please answer the following set of questions about the parents (or guardians) you live with. For each question, circle and choose one answer.

How often ...

1. Is your parent a good listener?

Almost never    Once in a While    Sometimes    Often    Almost always

2. Can your parent tell how you are feeling without asking you?

Almost never    Once in a While    Sometimes    Often    Almost always

3. Does your parent try to understand what you think?

Almost never    Once in a While    Sometimes    Often    Almost always

4. Are there things that you do not discuss with your parent?

Almost never    Once in a While    Sometimes    Often    Almost always

5. Do you discuss problems with your parent?

Almost never    Once in a While    Sometimes    Often    Almost always

6. Does your parent insult you when she/he is angry with you?

Almost never    Once in a While    Sometimes    Often    Almost always

7. Do you think that you can tell your parent how you really feel about some things?

Almost never    Once in a While    Sometimes    Often    Almost always

8. Can you let your parent know what is bothering you?

Almost never    Once in a While    Sometimes    Often    Almost always

9. Are there certain things which your parent does not allow you discuss with her/him?

Almost never    Once in a While    Sometimes    Often    Almost always

10. Can you have your say even if your parent disagrees with you?

Almost never    Once in a While    Sometimes    Often    Almost always

**AST**

We are interested in the way you and your classmates respond to typical situations you might have to face from time to time. Read each situation and list as many ways as you can think of to show what you would do about each situation.

This is not a test. There are no right or wrong answers. We are interested in your ideas and opinions.

PB

You are in the classroom and you have handed in a worksheet at the teacher's desk. On the way back to your own desk, a student sticks his foot out to trip you, and pokes you with his pencil. This student has bothered you before and whenever this student gets the chance, you are pushed or tripped or bothered.

What would you do if this has been happening to you? Try to think of as many solutions as you can and list them below.

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VB

When you walk down the hallways during the breaks, a group of students give you "looks" and call you names. These students have been making negative comments about you and try to make you feel bad whenever they get the chance.

What would you do if this has been happening to you? Try to think of as many solutions as you can and list them below.

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RB

Your teacher has just told the class to divide into groups for a group project activity. You approach two students who tell you that you can't join their group. While you are close enough to hear them talking, you hear them making rude comments about you.

What would you do if this has been happening to you? Try to think of as many solutions as you can and list them below.

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CB

Some students from your school have posted messages on an internet site about you. They are spreading rumors about you and calling you names.

What would you do if this has been happening to you? Try to think of as many solutions as you can and list them below.

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## Parent Form

Peer Bullying: An Examination of Parents' and Teens'  
Communication and Knowledge

Thank you for agreeing to participate in this research project. You will be asked to complete a variety of questionnaires that examine parenting, communication, and students' and their parents' attitudes toward and experiences with bullying situations. There are no right or wrong answers so be as honest as you can in your responses. Please be assured that your responses will be treated as confidential and will not be shared with anyone outside our research team.

Consider the following definition of bullying as you complete the questionnaires.

It is bullying, when one child is repeatedly exposed to harassment and attacks from one or several other children; harassment and attacks may be, for example, shoving or hitting the other one, calling him/her names or making jokes about him/her, leaving him/her outside the group, taking his/her things, or any other behavior meant to hurt the other one.

It is not bullying when two students with equal strength or equal power have a fight, or when someone is occasionally teased, but it is bullying when the feelings of one and the same student are intentionally and repeatedly hurt.

**PABS**

Circle one of the answers below each statement.

1. I can understand how some children enjoy bullying.  
 Agree   Slightly Agree   Not Sure   Slightly Disagree   Disagree
2. It can be funny to see people being teased.  
 Agree   Slightly Agree   Not Sure   Slightly Disagree   Disagree
3. Everybody should be able to stand up for themselves.  
 Agree   Slightly Agree   Not Sure   Slightly Disagree   Disagree
4. It's not surprising that 'wimps' are often unpopular.  
 Agree   Slightly Agree   Not Sure   Slightly Disagree   Disagree
5. A small amount of bullying can be a good thing, because it helps toughen people up.  
 Agree   Slightly Agree   Not Sure   Slightly Disagree   Disagree
6. A bully is really a coward.  
 Agree   Slightly Agree   Not Sure   Slightly Disagree   Disagree
7. Most kids who bully do it for a reason.  
 Agree   Slightly Agree   Not Sure   Slightly Disagree   Disagree
8. I admire people who usually get their own way.  
 Agree   Slightly Agree   Not Sure   Slightly Disagree   Disagree
9. I don't like bullying, but it's not my business to interfere.  
 Agree   Slightly Agree   Not Sure   Slightly Disagree   Disagree
10. It's fair that weaker children should get extra help in school.  
 Agree   Slightly Agree   Not Sure   Slightly Disagree   Disagree
11. When somebody gets punched or kicked, he or she should not hit back.  
 Agree   Slightly Agree   Not Sure   Slightly Disagree   Disagree
12. Kids shouldn't run to the teacher every time somebody teases them.  
 Agree   Slightly Agree   Not Sure   Slightly Disagree   Disagree
13. I worry that my own child may get bullied.  
 Agree   Slightly Agree   Not Sure   Slightly Disagree   Disagree
14. There will always be bullying in schools, it's just human nature.  
 Agree   Slightly Agree   Not Sure   Slightly Disagree   Disagree
15. Some kids get teased because they ask for it.  
 Agree   Slightly Agree   Not Sure   Slightly Disagree   Disagree

**PCC-P**

Please use your child's name in the blanks below. Circle one of the answers below each statement. How often ...

1. Can you discuss your beliefs with \_\_\_\_\_ without feeling restrained or embarrassed?

Almost never    Once in a While    Sometimes    Often    Almost always

2. Is \_\_\_\_\_ a good listener?

Almost never    Once in a While    Sometimes    Often    Almost always

3. Can \_\_\_\_\_ tell how you are feeling without asking you?

Almost never    Once in a While    Sometimes    Often    Almost always

4. Are you very satisfied with how you and \_\_\_\_\_ talk together?

Almost never    Once in a While    Sometimes    Often    Almost always

5. Does \_\_\_\_\_ try to understand your point of view?

Almost never    Once in a While    Sometimes    Often    Almost always

6. Are there things you avoid discussing with \_\_\_\_\_?

Almost never    Once in a While    Sometimes    Often    Almost always

7. Do you discuss child-related problems with \_\_\_\_\_?

Almost never    Once in a While    Sometimes    Often    Almost always

8. Does \_\_\_\_\_ insult you when he/she is angry with you?

Almost never    Once in a While    Sometimes    Often    Almost always

9. Do you think you can tell \_\_\_\_\_ how you really feel about some things?

Almost never    Once in a While    Sometimes    Often    Almost always

10. Does \_\_\_\_\_ tell you about his/her personal problems?

Almost never    Once in a While    Sometimes    Often    Almost always

11. Does \_\_\_\_\_ keep his/her feelings to him/herself rather than talk about them with you?

Almost never    Once in a While    Sometimes    Often    Almost always

12. Does \_\_\_\_\_ hide being angry?

Almost never    Once in a While    Sometimes    Often    Almost always

13. Do you encourage \_\_\_\_\_ to think about things and talk about them so that he/she can establish his/her own opinion?

Almost never    Once in a While    Sometimes    Often    Almost always

14. If \_\_\_\_\_ is upset is it difficult to figure out what he/she is feeling?

Almost never    Once in a While    Sometimes    Often    Almost always

15. Does \_\_\_\_\_ let things pile up without talking or dealing with them until they are more than you and he/she can handle?

Almost never    Once in a While    Sometimes    Often    Almost always

16. Does \_\_\_\_\_ let you know what is bothering him/her?

Almost never    Once in a While    Sometimes    Often    Almost always

17. Are there certain topics that you do not allow \_\_\_\_\_ to discuss with you?

Almost never    Once in a While    Sometimes    Often    Almost always

18. Does \_\_\_\_\_ admit mistakes without trying to hide anything?

Almost never    Once in a While    Sometimes    Often    Almost always

19. Can \_\_\_\_\_ have his/her say even if you disagree?

Almost never    Once in a While    Sometimes    Often    Almost always

20. Do you and \_\_\_\_\_ come to a solution when you talk about a problem?

Almost never    Once in a While    Sometimes    Often    Almost always

**AST**

We are interested in the way you and your child respond to typical situations your child might have to face from time to time at school. Read each situation and list as many ways as you can think of to show what you would do about each situation.

This is not a test. There are no right or wrong answers. We are interested in your ideas and opinions.

PB

Your child comes home and tells you that when returning to his/her desk from handing in an assignment, a student stuck a foot out to trip your child and poked your child with a pencil. This student has pushed and tripped your child before.

1. How would you discuss this situation with your child?
2. What would you do if this has been happening to your child?

Try to think of as many solutions as you can and list them below.

VB

Your child comes home from school and tells you that when he/she walks down the hallways during the breaks, a group of students give him/her “looks” and call him/her names. These students have been making negative comments and trying to make your child feel bad before.

1. How would you discuss this situation with your child?
2. What would you do if this has been happening to your child?

Try to think of as many solutions as you can and list them below.

RB

Your child comes home from school and tells you that the teacher had asked the class to divide into groups for a group project activity. Your child approached two students and was told that he/she could not join their group. Your child also tells you that he/she was close enough to hear them talking and they were making rude comments about your child.

1. How would you discuss this situation with your child?
2. What would you do if this has been happening to your child?

Try to think of as many solutions as you can and list them below.

CB

Some students from your child’s school have posted messages on an internet site about your child. They are spreading rumors and calling your child names.

1. How would you discuss this situation with your child?
2. What would you do if this has been happening to your child?

Try to think of as many solutions as you can and list them below.