Adolescent Perceived Parenting as a Moderator of the Be SAFE Bullying Prevention Program: Examining the Influence of Parenting on Adolescent Program Outcomes

by

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Abstract

Evaluations of universal bullying prevention programs often find modest effects on adolescent bullying outcomes. It may be advantageous for those in bullying research to test differential effects of program outcomes via moderation. The current evaluation study examines the effects of the *Be SAFE* bullying prevention program on adolescent bullying attitudes and behaviors, as moderated by adolescent perceived parenting. Findings show that on average adolescents increased in bullying behaviors after participating in the *Be SAFE* program, and adolescents who perceived their parents to be permissive increased in bullying behaviors at a significantly higher rate. On average, there was no change in adolescent bullying attitudes after the *Be SAFE* program. There may be effects of perceived authoritarian parenting; however due to limitations this effect cannot be confirmed. Study limitations and recommendations for future research are discussed.

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Introduction

The recent increase in adolescent bullying rates and severity has driven bullying research (Carney & Merrell, 2001; Modecki, Minchin, Harbaugh, Guerra, & Runions, 2014). Bullying is the intentional and repetitive negative actions that involve an imbalance of power between a perpetrator and the victim (Olweus, 2013). Bullying broadly includes traditional and cyber-bullying. Traditional bullying includes negative physical, verbal, and social actions toward a peer (Modecki et al., 2014). Research indicates that approximately 35% of adolescents are perpetrators and 36% of adolescents are victims of traditional bullying. Cyberbullying, a more modern form of bullying, is bullying through the use of electronic venues, such as e-mail, chat rooms, social media and networking sites, text messaging, and other internet based forms of communications (Hase, Goldberg, Smith, Stuck, & Campain, 2015). It is estimated that 16% of adolescents are perpetrators of cyberbullying and 15% of adolescents are victimized via cyberbullying (Modecki et al., 2014).

Research has found bullying perpetration and victimization to have negative behavioral and mental health effects during childhood, adolescence, and adulthood (Golmaryami et al., 2016; Smokowski & Kopasz, 2005). Bullying perpetration and victimization at school is linked to internalizing and externalizing problems in adolescence, as well as aggressive and violent behaviors later in life (Farmer et al., 2015; Kelly et al., 2015; Sigurdson, Undheim, Wallander, Lydersen, & Sund, 2015; Ttofi, Farrington, & Lösel, 2012). Applied researchers use bullying research to inform bullying prevention and intervention programs that aim to decrease the negative outcomes of children and adolescents.

Given the high number of peer interactions and prevalence of bullying situations in school settings, researchers often study bullying interactions in school settings. Many schools

and school districts have mandated the implementation of bullying programs to decrease bullying behaviors in schools. These programs are primarily universal, information-based approaches to preventing bullying behaviors. Universal bullying programs aim to affect the knowledge, beliefs, and behaviors of all who participate, and are implemented to an entire population of students regardless of bullying or victimization status. Universal bullying programs can range from student-only to whole-school interventions that include teachers, administrators, and even custodians (Smith, Schneider, Smith, & Ananiadou, 2004). These programs are ideal when aiming to reach all individuals within a school to affect school climate.

Though universal bullying programs can be beneficial because of their ability to affect all roles in school bullying behaviors, there may be external contributors to the effectiveness of programs that are not associated with the actual program. Most studies on intervention effectiveness focus on program implementation and curriculum, but there is a gap in the research examining parental influence on the effectiveness of interventions. Furthermore, though research has linked types of parenting to bullying and aggressive behaviors in adolescence, these links have not been fully explored in bullying prevention and intervention research (Axford et al., 2015; Cross & Barnes, 2014; Georgiou & Stavrinides, 2013).

Family-inclusive prevention and intervention programs are based on the research that links familial interactions to adolescent behavior; however, only some programs have studied the effects of familial interactions, parenting in particular, on bullying outcomes in their program evaluations. Student-only programs that do not require parent participation, often only focuses on effects within the school context. This approach to evaluation omits the influence that family and the home environment may have on adolescent behavior. The ways in which adolescents interact with peers may be learned through parent-child interactions; these interactions could in-

turn influence their perceptions of acceptable behaviors with others (Fingerman & Bermann, 2000; Patterson, 1982). Therefore, the normalization of parent-child interactions may influence adolescent bullying program outcomes, particularly with programs that aim to improve peer interactions. These interactions can affect adolescents' bullying attitudes and behaviors and their receptiveness to prosocial concepts relayed in bullying prevention and intervention programs.

The Alabama Cooperative Extension System's (ACES) division of Family and Consumer Sciences (FCS) has been implementing a bullying prevention program, *Be SAFE*, throughout Alabama for several years. *Be SAFE, **A**ffirming, and **F**air **E**nvironments* (*Be SAFE*) is a prevention program that aims to change adolescents' understanding and beliefs associated with bullying and peer victimization (Olsen & Pace, 2013). Michigan State University's Extension System created the *Be SAFE* curriculum and a reduced version of this curriculum is implemented universally in several Alabama middle schools.

We have used the *Be SAFE* program to begin to understand the influence of parenting on the effectiveness of similar bullying programs for early adolescents. The current evaluation study explores the moderating effects of adolescents' perceived parenting on adolescent bullying attitudes and behaviors after completing the reduced *Be SAFE* program.

Literature Review

Bullying and Aggression in Early Adolescence

Aggression in early adolescence is most commonly studied within peer interactions. There are two main forms of aggression: indirect and direct. Card, Stucky, Sawalani, and Little (2008) describes indirect aggression as an umbrella term that includes relational and social aggression. Relational aggression is the harming of an individual by manipulation of peer relationships, while social aggression is harming by ostracism and character attacks. Examples of

relational and social aggression would be spreading rumors or excluding others from group activities. Direct aggression, however, is comprised of physical and verbal aggression. Physical aggression is physically hitting, shoving, or fighting an individual, whereas verbal aggression is enacted through harsh words often seen in confrontations. According to Card et al. (2008), direct aggression is associated with emotional dysregulation, low peer acceptance, and low prosocial behavior, whereas indirect aggression tends to be associated with internalizing problems and high prosocial behaviors. Given that indirect aggression is relational and social in nature it often requires the help from peers; therefore, individuals who enact indirect aggression are often high in prosocial behaviors. However, both direct and indirect aggression are associated with conduct problems and peer rejection.

Bullying is a distinct form of peer aggression, and can be direct or indirect. Bullying is defined as intentional and repetitive negative actions that involve an imbalance of power between a perpetrator and the victim (Olweus, 2013; Thomas, Connor, and Scott, 2015). Cyberbullying tends to be indirect in nature and is associated with indirect aggression because it is perpetrated via technology and social media, which does not require direct contact between peers. Traditional bullying, while more overt, can include both direct and indirect forms of aggression. Traditional bullying includes behaviors such as physical and verbal aggression, as well as stealing from peers. Adolescents who bully may be perpetrators of both cyber and traditional bullying. Card et al. (2008) and Modecki et al. (2014) reported a high association between cyber and traditional bullying, supporting the notion that both are associated with aggression overall.

Bullying, and other aggressive behaviors, can be proactive or reactive in nature. Proactive aggression is displayed through deliberate actions that aim to achieve a particular goal (Card &

Little, 2006). Whereas, reactive aggression is described as defensive or emotional responses to negatively perceived actions (Card & Little, 2006). In a meta-analysis of differential relations in child and adolescent proactive and reactive aggression, Card and Little (2006) found reactive aggression to be more strongly associated with negative outcomes than proactive aggression.

Though bullying has been traditionally studied as acts of proactive aggression, research is beginning to better understand how both reactive and proactive aggression contribute to adolescent bullying. Adolescent bullying status is linked to both reactive and proactive aggression. Bully status identifies how individuals are involved in bullying situations. The four bullying statuses are: bully (those who bully others), victim (those who are bullied), bully-victim (those who are both bullied and victimized), and individuals not involved in bullying (Duncan, 2004). Individuals with bully-victim status display both proactive and reactive bullying behaviors and are the most aggressive status group (Salmivalli & Nieminen, 2002). Individuals with a status of bully also display both proactive and reactive aggression, but are slightly less aggressive than those with a status of bully-victim (Crapanzano, Frick, Childs, & Terranova, 2011; Salmivalli & Nieminen, 2002). Victims are only reactively aggressive (Salmivalli & Nieminen, 2002). Research has found similarities and differences in attitudes about bullying and victimization given an individuals' bully status.

Bullying attitudes.

Adolescents' attitudes about bullying have been associated with their bully status. Sometimes called provictim attitudes, bullying attitudes refer to how individuals feel toward the perpetrators and victims of bullying. Positive bullying attitudes are generally categorized by feelings of empathy for the victim, whereas negative bullying attitudes are categorized by justification for bullying behaviors. Research has found that provictim attitudes are negatively

related to bullying behaviors and positively related to victimization (Schokman et al., 2014). Thus, victims have more positive attitudes toward those who are victimized; whereas adolescents who bully tend to have less positive attitudes about the victims of bullying. Similarly, bullies and bully-victims have less positive attitudes toward victims of bullying (Ireland, 1999). Schokman and colleagues (2014) suggested that victims may have more positive attitudes towards victims based on their own experiences of victimization (Schokman et al., 2014). However, there appears to be a difference between victims and bully-victims' provictim attitudes. Ireland (1999) suggested that individuals in the bully-victim group might adopt attitudes that support bullying behaviors. A recent longitudinal study examining the mental health of bully-victims found that bully-victims at age 10 are likely to remain bully-victims at age 13. They also found that bully-victims are not likely to be bullies who are later victimized (S. Lereya, Copeland, Zammit, & Wolke, 2015). Thus, bully-victims may have early peer experiences that begin with concurrent bullying perpetration and victimization, or as victims who later display bully behaviors. This suggests that victims may adopt bullying behaviors and attitudes after experiencing victimization. This is in-line with the assumption that individuals can adopt attitudes and behaviors as a normalization of 'acceptable' behaviors.

Based on previous research, bullying attitudes may be less positive in early to mid-adolescence, when bullying behaviors tend to peak. Ireland (1999) found that adolescents had less provictim attitudes than adults; whereas Rigby and Slee (1991) found that from childhood to adolescence attitudes toward victims become less positive (Rigby & Slee, 1991). No study examines change in bullying attitudes from childhood through adulthood. However, taken together, these findings suggest that attitudes towards victims may be less positive in adolescence compared to other developmental periods. Findings related to developmental effects

of bullying attitudes are important for intervention research as attitudes have been found to predict behaviors in adolescence (Datta, Cornell, & Huang, 2016; Schokman et al., 2014). Though these effects are often modest in bullying research (Salmivalli & Voeten, 2004), they provide insight on how bullying behaviors are related to adolescent attitudes about bullying and how changes in bullying attitudes may affect bullying behaviors.

Attitudes towards bullying are also related to an individual's bullying role. Bullying roles are similar to bully status; however, bullying roles describe how an individual interacts in bullying situations. Commonly studied bullying roles are bully, victim, assistant (assists the bully in bullying situations), reinforcer (encourages bully in bullying situations), defender (defends the victim in bullying situations), and outsider (non-involved bystander). Though the role of defenders has been found to be stable across school years (Crapanzano et al., 2011), bullying roles can vary in different bullying situations. Bullying, assisting, and reinforcing, however, have been found to be predictive of each other's characteristics (Crapanzano et al., 2011), suggesting that individuals who participate in one of these roles are likely to participate in one of the others. Bullying, reinforcing, and assisting are related to low prosocial behaviors and aggressive characteristics (Crapanzano et al., 2011).

Adolescents who defend and stay uninvolved in bullying situations have more anti-bullying attitudes and moral disapproval of bullying; whereas, those who have bullying, reinforcing, or assisting roles have less anti-bullying attitudes (Salmivalli & Voeten, 2004). Similarly, a study found that adolescents with high moral disengagement and a peer-normalized view of the bully have more positive attitudes toward those who bully (Almeida, Correia, & Marinho, 2010). This study also found that increased age and high moral disengagement predicts

negative attitudes toward defenders in bullying situations, but a peer-normative view of defenders predicts more positive attitudes towards defenders (Almeida et al., 2010).

Though a reasonable amount of research on the effects of bullying attitudes on bullying behaviors exists, predictors of bullying attitudes have not been very well studied. The previously cited studies found that peer normalization of bullying roles and moral disengagement predict bullying attitudes, but not much research has been conducted that examines earlier predictors of bullying attitudes. Though a few studies tested the effect of parent's bullying attitudes on adolescent attitudes, they found no association (Eslea & Smith, 2000; Williams, 2009). Given the research that shows a difference in bullying attitudes based on an individuals' bullying status and roles, it is possible that parents' attitudes about bullying may be related to their personal bullying experiences. If parents' bullying experiences differ from their child's experiences, it is likely that their bullying attitudes differ. To understand parents' role in adolescent bullying attitudes and behaviors, it may be better to examine parent-child interactions. It is possible that parenting, in general, can influence how adolescents approach and accept their interactions with peers.

Parenting

For decades, researchers have been identifying various strategies and goals of parenting to better understand what leads to positive outcomes for children and adolescents. As a result, many types of parenting have been linked to adolescent outcomes, including involvement bullying (Georgiou & Stavrinides, 2013; S. T. Lereya, Samara, & Wolke, 2013; Papanikolaou, Chatzikosma, & Kleio, 2011). These studies have shown that certain types of parenting affect adolescents' social interactions outside of the family. Parenting is often discussed using typologies, such as parenting styles, or as smaller contributing constructs, such as parenting practices and dimensions. Research often uses these three categories of parenting to explain

behaviors associated with parenting (Baumrind, 1971; Gómez-Ortiz, Del Rey, Casas, & Ortega-Ruiz, 2014). Although these parenting types describe behaviors or attitudes of parents that influence the parent-child relationship, they are conceptually different.

Parenting practices are behaviors exhibited towards the child, with specific goals (Darling & Steinberg, 1993). Examples of parenting practices would be spanking a child to correct unwanted behavior, or being involved in school functions to ensure their child's academic success (Darling & Steinberg, 1993). Parenting dimensions are qualities, features, and descriptions used to examine the nature of parenting (Skinner, Johnson, & Snyder, 2005). According to Skinner, Johnson, and Snyder (2005), there are six core parenting dimensions: structure, autonomy support, coercion, chaos, warmth, and rejection. These dimensions are properties of parenting that serve as the building blocks of parenting styles. Parenting styles are collections of communicated attitudes towards the child that create the emotional climate in which parental behaviors are expressed (Darling & Steinberg, 1993). This study will examine parenting using the dimensions of warmth, rejection, and the parenting style typologies.

Parental warmth and rejection.

Parental warmth and rejection are two parenting dimensions that are most often studied in the parenting research. It is suggested that parental warmth is the most important dimension of parenting because love and affection are the foundation of caregiving (Rohner, 1976; Skinner, Johnson, & Snyder, 2005). Sometimes called *acceptance*, warmth is parents' expression of affection, kindness, love, appreciation, and regard for their child. A parent who is warm, consistently emotionally available, supportive, and caring, in parent-child interactions; this is especially true when their child is seeking comfort and reassurance (Skinner, Johnson, & Snyder, 2005).

Rejection in the parenting research is defined as parents' dislike of their children, often seen through the communication of negative feelings towards the child through criticism and disapproval. Parental rejection, sometimes called *hostility*, in parent-child interactions can be parent initiated, or a reaction to a child's behaviors (Skinner, Johnson, & Snyder, 2005). Parental rejection has been used as a contrasting dimension of parental warmth, as well as its own unique construct (Khaleque, 2013; Skinner, Johnson, & Snyder, 2005). However, Skinner, Johnson, and Snyder (2005) suggest that they are independent dimensions of parenting, and should be measured separately. Meaning, a parent who is assessed low on the warmth dimension is not necessarily high in rejection and vice versa. For that reason, this study will measure parental warmth and rejection separately, to assess the distinction of the two constructs.

Parental warmth and rejection have been associated with psychological adjustment of adolescents. Khaleque et al. (2013) found perceived parental warmth to be positively associated with emotional stability, positive world-view, and self-esteem; whereas rejection by parents is related to hostility, aggression, and negative world view for children. Skinner, Johnson, and Snyder (2005) suggests that parental warmth is important for a child's sense of belonging, and parental rejection is detrimental to a child's sense of relatedness. Thus, these two dimensions of parenting are particularly important when measuring the effects of parent-child interactions on adolescents' attitudes and behaviors regarding bullying. Parental warmth and rejection help to create the broader parenting typologies, parenting styles.

Parenting styles.

Baumrind (1971) operationalized the most commonly studied parenting styles as authoritarian, authoritative, and permissive-indulgent based on parents' demandingness and responsiveness toward their children. Authoritarian parents value obedience and use forceful and

punitive measures for behavior change. The authoritarian parent also values respect for authority, work, order, and tradition (Baumrind, 1971). These parents usually use strict discipline, enforce many rules, and have high levels of control over their children's behaviors, actions, and interests. An authoritative parent, on the other hand, encourages give-and-take in their parent-child communication, and respects the interests of their child. Authoritative parents enforce policies while retaining an authority role, but are sure to provide reasoning behind their rules (Baumrind, 1971). These parents usually have warm, open relationships that provide the child with flexibility and some agency, while still operating under the authority of their parents. As defined by Baumrind (1971) permissive parents sometimes called indulgent, are non-punitive, accepting, and give in to their child's impulses and desires. Permissive parents make few demands of their children and do not take active responsibility for shaping their behaviors. These parents usually allow their child to do what they feel is best for themselves; though they are present, they do not enforce any of their own feelings on their children.

Research uses various perspectives to measure parenting: self-report from the parent, reports from a spouse, teacher, or the child. Studies have found parenting to be a subjective construct, dependent on the perspective of the source. Adolescent perceived parenting is a common perspective used by researchers to understand the effects of parenting. In a 2009 meta-analysis, Hoeve and colleagues found the majority of studies relied on measures of child and adolescent perceived parenting (69%). Adolescent perceived parenting seems to be an important perspective to consider when assessing parenting. Adolescent's mental representations of their parents' behavior can influence their perceptions of the parent-child relationship which may affect adolescent outcomes (Hoeve et al., 2009a; Main, Kaplan, & Cassidy, 1985; Oldehinkel, Veenstra, Ormel, De Winter, & Verhulst, 2006). Studies have found that parents' self-report of

their parenting often differ from adolescents' perception of their parents' parenting (Hoeve et al., 2009; Lanz, Scabini, Vermulst, & Gerris, 2001). Hoeve and colleagues (2009) found, that adolescents tend to report more negative characteristics of their parents, while parents report more desirably in self-reported parenting (Hoeve et al., 2009). Fortunately, studies have found that from early adolescence (9-12 years old) to mid-adolescence (13- 16 years old) parent-child reporting congruence improves (Lanz et al., 2001).

Adolescent perceived parenting affects a myriad of outcomes for adolescents academically, mentally, and socially. In particular, research has linked parenting with peer aggression in early adolescence. A study using adolescents' perceptions of their parents' parenting style reported a strong relationship between authoritarian parenting and higher rates of adolescent aggression and hostile behaviors towards their peers (Gómez-Ortiz, Del Rey, Casas, & Ortega-Ruiz, 2014). These findings support a relationship between parenting and adolescent aggression.

Parenting and Early Adolescent Aggression

Much research has linked parenting to the level of aggression displayed in early adolescence. Research examining the relationship between parental psychological control and relational aggression in youth found that greater parental psychological control is related to higher levels of relational aggression towards peers (Kuppens, Laurent, Heyvaert, & Onghena, 2013). Psychological control is defined as an excessive form of control that can stunt or disturb a child's psychological development through exploitation of the parent-child bond, negative criticisms, and excessive personal control (Doyle & Markiewicz, 2005). High psychological control is characteristic of authoritarian parents. Psychological control is also associated with internalizing problems for adolescents (Doyle & Markiewicz, 2005). Doyle and Markiewicz

(2005) also found parental warmth predicts higher self-esteem and fewer externalizing problems in youth.

Batool and Bond (2015) found parents' emotional intelligence and adolescents' physical and verbal aggression are negatively related. This finding suggests that high emotional intelligence in parents predicts lower verbal and physical aggression reported for their adolescents. Emotional intelligence is the ability to monitor the feelings and emotions of oneself and others in order to guide one's thinking and actions (Salovey & Mayer, 1989). Batool and Bond (2015) found that parenting styles mediate the relationship between parents' emotional intelligence and adolescent aggression. Specifically, parents with high emotional intelligence are more authoritative and have children who display low levels of aggression (Batool & Bond, 2015). Thus, parents' emotional intelligence contributes to adolescent aggression through their parenting style. These findings suggest that parents' emotional and cognitive capacities may contribute to the attitudes and beliefs that comprise their parenting.

Similarly, a study examining the mediating effect of warm and harsh parenting on adolescents' emotion regulation through parents' emotion regulation found that hostility and rejection mediates the relationship (Sarıtaş, Grusec, & Gençöz, 2013). These findings hold true for both adolescents' and mothers' reports of parenting dimensions. Thus, mothers who have trouble regulating their emotions are hostile and rejecting to their adolescents (Sarıtaş et al., 2013). However, this study found no effect of parental warmth on adolescents' emotion regulation.

A similar pattern was found in a 2014 study that examined the influence of structural and dynamic family characteristics on the development of aggressive and depressive behaviors in adolescents (Sijtsema, Oldehinkel, Veenstra, Verhulst, & Ormel, 2014). Sijtsema and colleagues

found that parental rejection is associated with the development of aggressive behaviors in adolescents, but found no effect of warmth on the development of aggression and depression. These findings further support the suggestion that dimensions of parental warmth and rejection are not polar opposites, and should be measured as separate dimensions.

Research has also found differential effects when mothers' warmth and rejection is compared to fathers' warmth and rejection. For example, maternal rejection is associated with aggressive behaviors for adolescents (Sijtsema et al., 2014); however, Gallarin and Alonso-Arbiol (2012) found that adolescents' externalizing problems are more strongly affected by paternal parenting. In a study examining parenting effects on the targets of their children's prosocial behaviors, negative fathering, characterized by harshness, restriction, displays of anger, frustration, and disappointment in children, was negatively associated with adolescents' prosocial behaviors towards family, mothers, fathers, friends and strangers (Padilla-Walker, Nielson, & Day, 2016). Negative fathering seems to have more of a negative influence, than negative mothering, on adolescents' behaviors. This study did not find maternal hostility to be associated with prosocial outcomes. Maternal warmth is associated with prosocial behaviors towards family; whereas, paternal warmth is associated with prosocial behaviors towards peers (Padilla-Walker et al., 2016). This research linking parenting to prosocial behaviors towards peers is very relevant to the research that supports an association between parenting and adolescent bullying.

Parenting and bully status.

Similar to the research linking parenting to aggression in early adolescence, much research exists linking parenting to bullying in early adolescence. Research on parenting practices, as they relate to bullying status, found that adolescents who willingly disclose daily

experiences to their parents have no problems with bullying or victimization (Georgiou & Stavrinides, 2013). These findings suggest that open parent-child communication, characteristic of authoritative parenting, may affect subsequent adolescent behaviors and bullying outcomes.

In a review examining the influence of familial interactions on bullying behaviors, Cross and Barnes (2014) suggested that family dynamics may cause children to adopt roles of scapegoat or bully, which may be necessary to cope in the family context. These adopted family roles seem to manifest in the context of peer relationships. Papanikolaou, Chatzikosma, and Kleio (2011), examined the family's role in bullying and found that parents' discipline practices are a significant influence on the bullying behaviors of youth. Their findings further support the research linking parenting with forms of adolescent bullying behaviors. Furthermore, research examining the effects of parenting on bully and victim status found that youth whose parents are maladaptive, neglectful, and abusive are likely to be perpetrators of bullying and a victim concurrently, or to be a non-bullying victim (Lereya, Samara, & Wolke, 2013). This suggests that adolescents may not only apply aggression to other contexts, but may also adopt the learned role of being a bully or a victim in peer interactions through interactions with their parents.

Though several dimensions of parenting exist, parental warmth and rejection may be the most applicable dimensions of parenting to study given their relations to adolescent peer interactions. Many studies have used acceptance and rejection to study peer interactions (Deković & Meeus, 1997; Dijkstra, Lindenberg, & Veenstra, 2008; Sentse, Lindenberg, Omvlee, Ormel, & Veenstra, 2010); specifically, bullying behaviors are shown to be positively related to peer rejection and negatively related to peer acceptance (Dijkstra et al., 2008). In addition, acceptance and rejection in the parental and peer contexts are interdependent (Sentse et al.,

2010). This further supports the importance of studying the possible effects of parenting in bullying prevention and intervention programs.

Family Systems and Coercion Theory

The relationship between parenting and adolescent aggression can be explained through family systems theory. Family systems theory was developed as a clinical approach to therapy to evaluate individuals and their behaviors using an ecological perspective that was specific to the family system (Bavelas & Segal, 1982). Using general systems theory as an influence, family systems theory was first used as a theoretical framework emphasizing the importance of familial influence on individuals' behavior. It suggests that an individual can only be understood in the context of the family system in which they develop (Cross & Barnes, 2014).

Family systems theory suggests that behavioral patterns are created through coping with challenges and protecting one's own interests within the family system. Members in a family system perpetuate values and beliefs, including feelings of how others should be treated (Fingerman & Bermann, 2000). Interactions within the family are discussed through smaller family units called sub-systems. There are several sub-systems within the family including parent-child, sibling, spousal, and grandparent-grandchild. Behavioral patterns are often created specifically to deal with stress and conflict within the family context. While each family sub-system may develop different patterns, they all contribute to an individual family members' accumulation of certain behavioral patterns (Cross & Barnes, 2014). In the parent-child subsystem, children create behavioral patterns based on their interactions with their parents. These behavioral patterns eventually become coping mechanisms that often are used daily. Subsequently, these behaviors may be applied to other contexts to include interactions with peers, romantic partners, and even bi-directionally back to other family members (Cross & Barnes, 2014).

The development of these behavioral patterns within the parent-child relationship is best explained through Gerald Patterson's (1982) coercion theory. Paring family systems theory and coercion theory may provide insight into the mechanisms in which negative and aggressive behaviors are normalized within the parent-child subsystem. Coercion theory was developed based on scientists' observations of natural parent-children interactions. The theory suggests that parents and children learn negative behavior patterns through interactions that increase children's likelihood of developing aggressive behaviors. These coercive interactions are believed to be what forms and maintains aggression across development (Granic & Patterson, 2006; Patterson, 1982). These aversive parent-child interactions become a learned response to interactions and situations that may occur in other contexts (Snyder and Patterson, 1987; Unnever, Colvin, Cullen, 2004).

Coercion and family systems theory can be applied to bullying research. Coercion theory used by Unnever, Colvin, Cullen in 2004 to frame "peer coercion" as a construct to operationalize bullying in early adolescence and family systems theory was recently used to explain the relationship between parenting and bullying in adolescence by Cross and Barnes in 2014. These theories support findings across studies linking parenting to behavioral patterns that adolescents use when interacting with peers. Though both coercive and family systems theory emphasize bi-directional effects, the current study seeks to understand the effect of parents' behaviors on adolescent peer interactions. Behaviors of adolescents could affect the type of parenting performed by a parent; however, the influence of adolescents' behavior on parenting is not salient in this research.

The research linking parenting and early adolescent aggression supports family systems and coercion theories' suggestion that parent-child interactions can influence the behaviors adolescents display in peer interactions. Parent-child interactions may influence adolescents'

perceptions of acceptable behaviors that, in turn, may affect the way adolescents interact with their peers. Aggression in particular, may be an important behavioral pattern to study because of its relation to bullying behaviors in early adolescence. If adolescents learn to respond aggressively, in family contexts, in order to preserve their interests, they may extend the use of those behaviors in other contexts (Cross & Barnes, 2014). Parenting may moderate the effectiveness of prevention programs that target attitude and belief change, bullying in particular, for adolescents who have grown accustomed to negative behaviors through interactions with their parents. This study aims to examine how parent-child interactions can affect adolescents' ability to learn new ways to interact with peers that may contradict their experiences at home.

Parenting and Bullying Prevention

Most prevention programs that target aggressive behaviors in early adolescence are designed to prevent bullying in schools. Extensive efforts have been undertaken to create prevention programs to address bullying behaviors in children and adolescents (Clarkson et al., 2016; Olweus, 2005; Palladino, Nocentini, & Menesini, 2016). The evaluation of bullying prevention programs is necessary to study the effectiveness and impact of the program on the target individuals. Though there are some evaluation studies of family-inclusive bullying programs, they rarely use family-level variables as outcomes; even fewer studies appear to use family-level variables as predictors of program effectiveness (Axford et al., 2015; Brown, Low, Smith, & Haggerty, 2011; Cross et al., 2012). Most evaluation studies have only included programmatic, individual, and school related variables, such as curriculum, academic outcomes, and school climate (Chalamandaris & Piette, 2015; Low & Van Ryzin, 2014; Olweus, 2005; Polanin, Espelage, & Pigott, 2012). Few studies have examined parent-level variables as moderators of adolescent program outcomes. Evaluation studies that examine the effects of

parent-level variables on program outcomes tend to focus on programs that include parenting components; in these studies, parenting is often tested as a mediator of adolescent outcomes (Hanisch, Hautmann, Plück, Eichelberger, & Döpfner, 2014; Maric, Prins, & Ollendick, 2015). . Given the extensive research linking parenting with bullying behaviors in adolescence, adolescents' perception of parenting may be a moderator of program outcomes.

Moderators of programs refer to variables that influence outcomes of prevention and intervention programs. Program moderators can distinguish differential participant program effects and can ultimately inform the design and implementation of programs (Hinshaw, 2007). Programs may not have the same impact on all adolescents; identifying possible subgroups of participants could assist researchers in examining group differences in program effects. Therefore, testing moderation in programs research is an important process that can inform evaluators of how and for whom programs are effective. Without testing for moderating variables, evaluations assume that program effects are homogenous across samples.

There has been very little research on whether parenting is a moderator of adolescent programs, broadly. The few studies that examined parent-related moderators of adolescent program outcomes have limited their measurement of parenting to psychological and economic related family variables, such as parental depression and socioeconomic status (Maric, Prins, & Ollendick, 2015). Currently, no known studies of bullying prevention programs exist that examine types of parenting as moderators of program outcomes; however, several studies do test family-level moderators on programs that aim to improve adolescent externalizing behaviors.

Previous studies operationalized parenting by assessing family conflict, parenting practices, and parental depression measures (Hinshaw, 2007; Kolko, Cheng, Campo, & Kelleher, 2011; Shelleby & Kolko, 2015). While these constructs measure parenting, they are different

from the measurements used in this study. First, the construct of family conflict is beyond the scope of this study and incorporates interactions that may extend beyond parent-child subsystem, limiting its relevance to the current evaluation. Although parenting practices are similar to parenting styles and dimensions, practices measure parents' behaviors toward the adolescent, specifically, and do not capture specific parent-child interaction patterns. Lastly, while parental depression may influence parent-child interactions, via parental warmth and rejection, it does not directly influence parent-child interactions.

Secondly, these studies did not use a clear measure of moderation. Hinshaw (2007) suggests that a moderator should be uncorrelated with treatment. The referenced studies varied in this standard of moderation; as all included a parenting component in the interventions, meaning parenting was not uncorrelated with the treatment. The interventions' parenting components ranged from parent management strategies to parent-child therapy. Parents' parenting practices and mental health could have been influenced by the program and ultimately affected adolescent program outcomes. The interventions' inclusion of parenting components may have influenced treatment outcomes, which blur the lines of a clear test of moderation. Also, these studies were randomized clinical trials of treatment interventions for adolescents. Though methodologically strong, it differs from the current study. These studies tested parent-related moderators of the treatment condition on treatment outcomes; the current study examines moderators of the change in bullying outcome variables for adolescents participating in the program.

The Current Study

The current study based on the consistent findings that link parenting to bullying behaviors in adolescence and applies these finding to the evaluation of the *Be SAFE* bullying prevention curriculum. The goal of the present study is to identify parenting moderators that may

affect adolescent bullying program outcomes. Dimensions of parenting and parenting styles have not been tested as moderators of bullying prevention programs, thus all moderation analyses are exploratory and hypothesis generating. Due to the lack of research in this area, it is not clear how parenting will affect adolescents' pre- to post-program bullying outcomes. This lack of knowledge and understanding emphasizes the importance of the research in the current study.

Testing moderators of prevention and intervention programs can identify possible subgroups and differential effects of the program given specific variables (Curry et al., 2006; Hinshaw, 2007). Considering the number of bullying prevention programs that are implemented, it is important to better understand how parenting can influence program outcomes for adolescents. Findings, whether significant or not, will help develop this area of research and provide implications for future research. The existing body of research and integrated theories suggest that parents can influence adolescents' behaviors and attitudes based on their parent-child interactions. Thus, this study seeks to examine if there is an effect of parenting on the change in adolescent program outcomes after completing the school-based bullying prevention program, *Be SAFE*.

Methods

Program

Be SAFE: **S**afe, **A**ffirming, and **F**air **E**nvironments bullying curriculum was developed as an extension initiative by Michigan State University Extension. The curriculum takes a positive youth development approach, largely focusing on promoting the development of emotional and social intelligence and offering ways to help youth become allies when they observe bullying behaviors (Olsen & Pace, 2013). *Be SAFE* is a classroom-based prevention program that targets peer groups, rather than individual bullies or victims, to teach youth about physical, verbal,

indirect bullying (rumors, etc.), and cyberbullying. This approach is based on research that suggests that bullying-related attitudes and behaviors tend to be shared among peer clusters and friend groups (Olthof & Goossens, 2008; Sentse, Scholte, Salmivalli, Voeten, 2007).

During the three years the curriculum has been used as a program within the Alabama Cooperative Extension System (ACES), it has been adapted to focus on key learning components of the curriculum and increase implementation feasibility for schools and Extension educators. The *Be SAFE* curriculum was adapted specifically for school settings where class periods are less than an hour and the number of times an outside educator can attend a class period is limited (for review of this process see Duke, Sollie, & Silvia, 2016; Duke & Maxwell, in press). Extension educators implement the program activities across seven sessions.

Evaluation Design

This study is an outcome-based summative evaluation. Summative evaluation is the process of assessing the effectiveness or efficacy of a program, post-implementation, to inform program decision-making (Smith & Brandenburg, 1991). This evaluation seeks to examine if adolescents' outcomes vary based on their perception of their parents' parenting. Parenting measures were added to the *Be SAFE* post-program questionnaire to measure adolescent perceived parenting. This evaluation may provide insight on effects of parenting in adolescent prevention and interventions efforts. The ability to understand parents' influence on school-based bullying prevention programs, like *Be SAFE,* can benefit future design and evaluation efforts. Therefore, the purpose of this evaluation study is to test moderating effects of parenting on the change in adolescent report of bullying variables after completing the *Be SAFE* curriculum.

Participants

The evaluation data were collected in an Alabama middle school within a rural school district. The sample consists of 87 seventh grade students who all completed the *Be SAFE* curriculum. Students range in age from 12-15 (M = 12.77, SD = 0.68). The sample is almost equally male (52.9%) and female (43.7%). The sample is 54% European-American, 23% African American or Black, 2.9% of mixed races, 9.2% Hispanic/Latino, 3.4% Asian, and 1.1% American Indian or Alaskan Native.

Data Collection

An extension educator, who implemented the program in a rural Alabama middle school, collected participant data. The extension educator administered the pre-program measures one week before the curriculum implementation. The five lessons of the curriculum were taught over the course of five weeks. The post-program questionnaire was administered one week after the final *Be SAFE* lesson. Adolescent pre- and post-program questionnaires were paired anonymously based on participant identification numbers.

Measures

Demographics. Student demographic information is self-reported from the pre- and post-program survey. Students' age, grade, sex, and race are collected pre- and post-program; only pre-program data are used in the analysis.

Bullying Behaviors. Adolescents self-reported their bullying behaviors pre- and post-program via the "Getting Along with Others" subscale. The "Getting Along with Others" scale is a 12 item subscale from the Student School Survey (SSS), a 70-item measure that includes 10 individual scales that measure bullying in schools (Williams & Guerra, 2007). The 12 items are measured on a 4-point Likert Scale (*A lot*, *Several Times*, *Once or Twice*, and *Never*,

respectively). Some items are recoded so that less bullying behaviors will be coded as lower (See appendix 1).

The 12-item scale showed an alpha of 0.70 pre- and 0.70 post-program. A Principal Component Analysis (PCA) of the "Getting Along with Others" scale showed two subscales which were operationalized as bullying perpetration/assisting and victim defending (See Table 1). These constructs are negatively related, as bullying perpetration/assisting are negative bullying behaviors and victim defending is a positive behavior. The bullying perpetration/assisting subscale has alpha coefficients of 0.83 pre- and 0.86 post-program; whereas the victim defending subscale has weaker reliability coefficients (0.52 pre- and 0.45 post-program). The victim defending subscale was not used in the analysis based on its low reliability and negative association with bullying perpetration/assisting. Thus, bullying behaviors are measured using 9 items from the "Getting Along with Others" subscale that measures bullying perpetration and assisting behaviors.

Bullying Attitudes. Adolescents' bullying attitudes are self-reported pre- and post-program with eight items from the revised Pro-victim Scale (Rigby, 1997). The "Pro-victim" subscale measures students' attitudes toward victims with a 3-point nominal scale (*agree*, *disagree*, and *unsure*). Some items are recoded so that positive attitudes towards victims of bullying were coded as higher (See appendix 1). The reliability of the original 20-item Pro-victim Scale has an alpha coefficient of 0.78 (Rigby & Slee, 1991); whereas, the eight item scale used in the current study showed an alpha of 0.53 pre- and 0.72 post-program.

Parental Warmth and Rejection. Egna **M**innen **B**etr¨affende **U**ppfostran (EMBU-C) is Swedish for My Memories of Upbringing (Castro et al. 1993; Muris et al. 1998). A modified EMBU-C, by Markus, Lindhout, Boer, Hoogendijk, and Arrindell (2003), was used in an

English-speaking sample and includes 81 adolescent-report items assessing four dimensions of parenting, including emotional warmth, rejection, overprotection, and favoring subject. This study only uses the emotional warmth and rejection subscales of the modified version of this EMBU-C (Markus, Lindhout, Boer, Hoogendijk, & Arrindell, 2003).

Emotional warmth is measured by 19 items that assess whether parents give special attention, praise for approved behavior, unconditional love, support and demonstrate affection to their adolescent. Parental rejection is assessed by 17 items that measure parental hostility, punishment, disparagement, and blaming of subject. Items are measured on a 4-point Likert Scale with answer categories 'yes, almost always,' 'yes, often,' 'yes, sometimes,' and 'no.' All items for the "emotional warmth" and "rejection" scales are coded so "yes, almost always" is rated as high; thus, high rates on either scale indicate more warmth or rejection. The items are modified in this study to report on a single parent instead of two parents. Parental emotional warmth has a reliability of 0.87-0.89 and parental rejection has a reliability of 0.83-0.84 (Markus et al., 2003). In the current study, parental warmth has an alpha of 0.95 and parental rejection an alpha of 0.86.

Before reporting on parenting measures, students also answered items about a parental figure they have the most interactions with at home. Students marked the identity of the caregiver from a predetermined list, including an option for "other." Students also identify the sex of the indicated caregiver.

Parenting Style. The Perceived Parenting Styles Survey (PPSS) assesses adolescent perceived parenting style. (McClun & Merrell, 1998). The PPSS is a short form that groups six statements that allow adolescents to choose one of the three major parenting styles (permissive, authoritative, authoritarian). Participants mark box with statements that best describes the

behaviors of their parent. McClun and Merrell found consistency in adolescents' perception of their parents' parenting style. This measure has a 100% reliability at the two time points (McClun & Merrell, 1998). Of the 61 adolescents who reported on their parent's parenting style, 51 perceive their parents to be authoritative (83.6%), and only a small number perceive their parents to be authoritarian (6.9%, $N = 6$) and permissive (6.6%, $N = 4$).

The number of items per scale, reliability coefficient alphas, intra-class correlations (ICC), and sample items are presented in Table 2.

Analysis

The Statistical Package for the Social Sciences (SPSS) was used for data cleaning, item recoding, and preliminary analysis, including descriptive statistics, estimated correlations, PCA, and reliability of study variables and constructs. Univariate analyses were conducted and variables were tested for normality and outliers using SPSS. A mean composite score was created for all constructs and tested for normality; excluding the parenting styles variables which were dummy-coded (See Table 3). Data were formatted and exported to MPlus for analysis.

Multi-level models were fit to examine the moderating effects of adolescent perceived parenting on the change in bullying attitudes and behaviors for adolescents before and after the *Be SAFE* program, within and between individuals. A series of two-level unconditional models were tested to examine the change in adolescents' bullying attitudes and behaviors using two time points. Level one tested an unconditional model by regressing bullying outcomes, behaviors and attitudes, on the time (program equals time). Level one shows the change in bullying outcomes across time for the entire sample. A conditional model added parenting at level two of the model as a moderating predictor of the level-one effect of change on bullying outcomes from Time 1 to Time 2.

Results

Moderators of Bullying Attitudes

The first unconditional model examined the change in bullying attitudes from pre- to post- program. Approximately 55% of the variance in change in attitudes is between students ($ICC = 0.55$). The average cluster size is 1.87; which in the case of two time repeated measures means, on average, participants had 1.9 responses out of 2 ($N = 163$; $design\ effect = 1.48$). The average pre-test score was 1.62 ($SE = 0.03$; $p < 0.001$), however, no main effect of change in bullying attitudes after the program ($\beta = 0.03$, $SE = 0.04$, $p = 0.39$). Thus, on average, no significant change in bullying attitudes exist in the sample overall. Also no significant variance remains in the slope of the model ($\varepsilon = 0.02$, $SE = 0.02$; $p = 0.27$); but variance does exist to be accounted for in the intercept ($\varepsilon = 0.06$, $SE = 0.01$; $p < 0.001$).

Conditional models were tested to account for variance in the intercept. Adolescent perceived parenting predicts the intercept of bullying attitudes for all adolescent perceived parenting types. Perceived authoritarian parenting ($\beta = -0.54$, $SE = 0.13$; $p < 0.001$) and permissive parenting ($\beta = -0.37$, $SE = 0.15$; $p = 0.01$) have significantly lower intercepts compared to perceived authoritative parenting ($M = 1.71$, $SE = 0.04$; $p < 0.001$). Perceived parental warmth ($\beta = 0.16$, $SE = 0.05$; $p = 0.004$), and parental rejection ($\beta = -0.24$, $SE = 0.07$; $p = 0.002$) also predicts the intercept of bullying attitudes (See Table 5). This suggests that adolescent perceived parenting may influence the adolescents' attitudes about bullying before the *Be SAFE* program. However, parenting appears not to effect change bullying attitudes for adolescents based on their perception of their parents' parenting (See Table 4).

Parental warmth, parental rejection, and parenting styles were tested in independent conditional models as moderating predictors of change in bullying attitudes. Perceived

permissive and authoritarian parenting were dummy coded and compared to authoritative parenting. Authoritative parenting (β = 0.06, *SE* = 0.07; p = 0.39), permissive parenting (β = -0.17, *SE* = 0.15; p = 0.23), parental warmth (β = 0.04, *SE* = 0.06; p = 0.442), and parental rejection (β = -0.01, *SE* = 0.09; p = 0.91) are not significant moderators of the change in bullying attitudes after the *Be SAFE* program. Although authoritarian parenting seemed to significantly moderate change in bullying attitudes after the *Be SAFE* program (β = 0.33, *SE* = 0.14; p = 0.02); however, this was not considered a moderating effect given the lack of variance available in the slope (ε = 0.02, *SE* = 0.02; p = 0.27) (See Figure 1).

Moderators of Bullying Behaviors

The second unconditional model examined the change in adolescent bullying behaviors after completing the *Be SAFE* program. Approximately 73% of the variance in change in behaviors is between students (*ICC* = 0.73). The average cluster size is 1.90; which in the case of two time repeated measures means, on average, participants had 1.9 responses out of 2 (N = 163; $design\ effect$ = 1.66). The average pre-test score was 0.44 (*SE* = 0.05; $p < 0.001$), which is indicative of low bullying behaviors; a main effect of change in bullying behaviors after the program was also found (β = 0.13, *SE*= 0.04, p = 0.001). This suggests that on average, there was a significant increase in bullying behaviors in the sample overall. Significant variance remained in the slope for this model (ε = 0.06, *SE* = 0.03; p = 0.057), and variance to be accounted for in the intercept (ε = 0.16, *SE* = 0.03; $p < 0.001$).

Adolescent perceived parenting predicts the intercept of bullying behaviors. On average adolescents who perceive their parents to be permissive have a higher intercept of bullying behaviors (β = 0.55, *SE* = 0.18; $p < 0.01$) than those with perceived authoritative parenting (M = 0.36, *SE* = 0.05; $p < 0.001$). Parental warmth (β = -0.20, *SE* = 0.07; p = 0.005) and parental

rejection ($\beta = 0.35$, $SE = 0.10$; $p < 0.002$) also predict the intercept of bullying behaviors (See Table 5). These findings suggest that authoritarian and permissive perceived parenting may have an influence on bullying behaviors before the *Be SAFE* program and adolescent change after completing the program (See Table 4).

Parental warmth, parental rejection, and parenting styles were tested in independent conditional models as moderating predictors of change in bullying behaviors. Permissive and authoritarian perceived parenting were dummy coded and compared to authoritative parenting. Authoritarian parenting ($\beta = 0.13$, $SE = 0.12$; $p = 0.28$), parental warmth ($\beta = -0.03$, $SE = 0.06$; $p = 0.634$), and parental rejection ($\beta = 0.00$, $SE = 0.08$; $p = 0.996$) are not significant moderators of the change in bullying behaviors after the *Be SAFE* program. Permissive parenting was found to significantly moderate change in bullying behaviors after the *Be SAFE* program ($\beta = 0.33$, $SE = 0.17$; $p = 0.02$) compared to authoritative parenting ($\beta = 0.12$, $SE = 0.04$; $p < 0.01$) (See Figure 6).

Discussion

This study aimed to examine moderating effects of parenting styles and dimensions on the change in bullying behaviors and attitudes after implementing the *Be SAFE* bullying prevention program. Parenting was studied using various constructs to understand the complexities of the parent-child dynamic. Using several measures of perceived parenting provided the opportunity to test single dimensions of parenting and broader parenting styles. Parenting was examined as a moderator to test if it affects the correction of bullying behaviors and attitudes given the research that consistently finds parenting to be predictive of bully status for children and adolescents. This study is likely the first of its kind and unique in its testing of

parenting's effect on adolescent outcomes after a bullying prevention program. We found differential effects of the parenting styles and parenting dimensions used in the study.

This study found that perceived parenting predicts adolescent pre-program reports of bullying attitudes. Adolescents who perceive their parents to be permissive and authoritarian have less positive bullying attitudes, before the *Be SAFE* program, than adolescents who perceive their parents to be authoritative. Perceived parental warmth predicted positive bullying attitudes pre-program, whereas more perceived parental rejection predicted less positive bullying attitudes before the *Be SAFE* program. The associations between parenting and bullying attitudes are similar to that of parents and bullying status. Thus, these patterns are not surprising and support previous research's findings that parenting is related to bullying behaviors in adolescents.

The results of this study show a lack of change in adolescent bullying attitudes after completing the *Be SAFE* bullying prevention program, thus, parenting did not moderate adolescent bullying attitudes. However, a moderation of authoritarian parenting on bullying attitudes appeared to exist. This is not an official study finding because of the limited predictive variance in the slope of bullying attitudes; however, there is significant statistical moderation and a clear visual moderation of authoritarian parenting (Figure 1). The lack of significant variance in the slope may have been due to the small number of adolescents who perceived their parents to be authoritarian (N= 6). A larger proportion of this parenting group may have allowed an appropriate interaction of authoritarian parenting on change in bullying attitudes. Adding predictors of change in the absence of significant variance in slope is methodologically controversial; nonetheless, testing this interaction showed an interesting finding.

The lack of change in bullying attitudes may be due to a ceiling effect. On average, adolescents in this study have positive bullying attitudes before the program, meaning they have positive attitudes toward victims of bullying and negative attitudes toward adolescents who bully. Prior research suggests adolescents have less positive bullying attitudes than those found in this study (Ireland, 1999; Rigby, 1997). However, these positive attitudes may be connected to the bully status of the youth in our sample (Ireland, 1999; Rigby, 1997; Salmivalli & Voeten, 2004; Schokman et al., 2014). Although bullying behaviors are assessed in this study, bully status and role was not appropriately assessed. It is possible that our sample contains a significant number of victims, resulting in more positive bullying attitudes. Without knowing the bullying status or roles within our sample, we cannot imply to whether bullying attitudes are that of bullies, victims, bully-victims, or uninvolved adolescents. Our findings could be assessing bullying behaviors and attitudes of any or all bullying statuses and roles, which limits our understanding of if these positive bullying attitudes are a result of perceived parenting, adolescents bullying status and roles, or both.

Similar to the current study, previous research has found short-term to no change in bullying attitudes as a result of bullying programming (Andreou, Didaskalou, & Vlachou, 2008; Hunt, 2007; Renshaw & Jimerson, 2012; Veerle Stevens, Van Oost, & De Bourdeaudhuij, 2000). The lack of change in bullying attitudes, on average, in this study may indicate that attitudes are not as malleable as bullying behaviors in adolescence. This is important to understand in bullying prevention. If attitudes cannot be changed, they may be better tested as a mechanism for changing adolescent bullying behaviors, through mediation or moderation. Previous research has found positive attitudes towards bullying to mediate the association between adolescent perspective-taking and bullying behaviors (Espelage, Mebane, & Adams, 2004). Therefore,

additional methodological designs can examine the influence of bullying attitudes on adolescent bullying outcomes.

The current study results also found perceived parenting to predict pre-program reports of bullying behaviors. Adolescents who characterized their parents as permissive have more pre-program bullying behaviors than adolescents who perceive their parents to be authoritarian and authoritative. Adolescents who perceive their parents to be high in warmth have less bullying behaviors pre-program; whereas, adolescents who perceive their parents to be high in rejection have more bullying behaviors before the *Be SAFE* program. On average, bullying behaviors increased from pre- to post-program, bullying behaviors were found to be moderated by perceived permissive parenting. Adolescents who perceive their parents to be permissive increase in bullying behaviors significantly more than adolescents who perceive their parents to be authoritarian and authoritative.

It is not clear whether the increases in adolescent bullying behaviors are due to actual behavior increases or behavior reporting. Given the program's emphasis on increasing awareness to types of bullying, it is possible that after completing *Be SAFE* participants reported bullying behaviors more accurately due to knowledge gain, which could appear as increase behaviors. However, this cannot be assessed without measuring adolescents' pre-program understanding and awareness of bullying behaviors. It is also possible that the lack of positive change in bullying outcomes is due to the preventive nature of the *Be SAFE* program. The pre-program levels of bullying behaviors indicate that adolescents are already engaging in bullying behaviors before the start of the program. Thus, the lack of positive bullying outcomes, on average, could be due to program ineffectiveness, even without considering parenting. Though permissive parenting seems to affect change in adolescents' bullying behavior, it is not a positive change.

However, the increase in bullying behaviors cannot be considered a negative finding without comparing the study sample to a control group. A control group would give more information on whether the increase was less or more than adolescents who did not participate in the program.

In addition, the parenting dimensions of warmth and rejection seem to be the most appropriate dimensions to study given their similarity to acceptance and rejection in the peer relationships literature. Given previous research suggestion that these are two separate parenting, the current study tested their effects in separate models. However, we found no significant effects of perceived parental warmth or rejection on the change in bullying attitudes or behaviors. Thus, it is still not clear whether parental warmth and rejection are two ends of single spectrum, or two separate construct. Research has seen effects of parental rejection even in the absence of an effect of parental warmth on variables like aggression and depression (Sijtsema et al., 2014). The almost significant increase in bullying behaviors for adolescents who perceive their parents as rejecting ($p = 0.07$) and lack of a similar finding for warmth in this study is similar to what has been found in previous studies. More contrasting findings between perceived parental warmth and rejection in the current study may have led to a better understanding of this issue; however, our findings did not provide enough support to imply such an understanding.

Limitations

As an exploratory study, this project presents several methodological limitations. The most significant limitation is the size of the study sample. Ideally, we would like to have a larger sample of students to increase the power in our analysis. In addition to the increase of the sample, we would hope to have greater variability in our adolescents' perceived parenting styles. The majority of students perceived their parents to be authoritative and only a small number

reported permissive and authoritarian parents. A larger sample size would allow for a more robust analysis and results that are more generalizable.

Another limitation to this study is the measuring of parenting. First, the testing of moderation would have been stronger if parenting had been measured pre-program. It is suggested that moderators be measured before programs to remain uncorrelated with treatment (Hinshaw, 2007; Maric et al., 2015a). Measuring parenting at before the program would decrease the likelihood that the program had any effect on parent-child interactions after the adolescent completes the program. Also, parenting is measured solely by adolescent report. Though adolescent perceived parenting is well researched and supported, it could be validated by parent–report of parenting.

Another limitation of this study was the limited information gathered on adolescents' bully status and role. Knowing the victimization status of the adolescents in the sample could better inform the interpretation of the study results. Victims tend to be more reactively aggressive, whereas adolescents who bully tend to be more proactively aggressive (Camodeca, Goossens, Terwogt, & Schuengel, 2002; Salmivalli & Nieminen, 2002). Therefore, an increase in bullying behaviors for both adolescents who bully and who are victimized could mean two different things in regards to the program and its effectiveness. This information could inform program designers of whether their program is affecting all bullying behaviors or just some types.

Finally, this study only gathered data from participants in the program. Ideally, an experimental design would be best to assess causation. Comparing the results found in this study to a control group would elevate this research to a higher standard of methodology. Results from an experimental design could inform us to whether the increase in bullying behaviors was a

result of parenting or a natural occurrence of the sample and similar adolescents. Similarly, knowing if attitudes also remain stable in a control group would give us more information about patterns of for bullying attitudes for adolescents and whether the lack of change is due to program or other variables not considered.

Future Directions

The current study should be replicated to address its limitations by increasing the sample size, assessing adolescent perceived parenting before the program, and applying an experimental design. In addition to addressing limitations, future research should expound on the concepts used in the current study to better examine the effects of parenting on program outcomes, as it pertains to bullying.

Perceived parental warmth and rejection may have had no effect on bullying behaviors because they are not appropriate constructs to measure these effects. Future research should examine additional parenting constructs be studied as moderators of change in bullying prevention, and other programs for adolescent externalizing behaviors. It is possible that other parenting dimensions are related to the facilitation or impediment of program outcomes. Potential dimensions may be those that are inherent in permissive parenting.

If the effect of permissive parenting is replicated in a more rigorous study design, there should be attempts to further understand which particular dimensions within permissive parenting may be contributing to the findings, or if it is the multiple dimensions within permissive parenting that are interacting to influence outcomes. Suldo (2004) examined authoritative parenting specifically to identify salient dimensions within the parenting style and found dimensions within authoritative parenting that had differential effects on adolescent outcomes (Suldo & Huebner, 2004). Similarly, by dismantling the permissive parenting style, we

may be able to find more salient dimensions to better understand the effect parenting has on program bullying outcomes. For instance, permissive parenting is indicative of low control. The lack of parental control may affect adolescents' perception of the severity of bullying behaviors. In this study, control may have affected the greater increase in bullying behaviors compared to other adolescents. In a study examining adolescents' family environment's influence on adolescent bullying involvement, adolescents who bullied others perceived their families to be less controlling compared to adolescents with other bully statuses. However, bully-victims perceived the highest levels of control from their families (Stevens, Bourdeaudhuij, & Oost, 2002). Stevens and colleagues' measure of control included parental discipline, which is a parenting practice. Parenting practices are not used in this study as moderators of adolescent program outcomes. However, parenting practices, like parental discipline, may be relevant to examining whether parenting affects adolescents' bullying program outcomes, as parenting practices are linked to bullying behaviors (Papanikolaou et al., 2011).

Though parental discipline influences adolescent bullying behaviors, teachers and parents tend not to talk to students who bully about their behaviors (Fekkes, Pijpers, & Verloove-Vanhorick, 2005). Therefore future studies should examine whether teacher intervention of bullying behaviors and school climate are relevant to adolescent bullying program outcomes. A study examining the moderating effect of school climate on bullying prevention program effectiveness found that a positive staff perception of school organizational climate predicted lower levels of bullying perpetration, though it was not related to program effectiveness (Low & Van Ryzin, 2014). School organizational climate assessed the number of policies and strategies the school enforced to prevent bullying. Thus, school-level variables, like level of teacher intervention of bullying situations and school discipline policies, may be important to examine

when evaluating bullying program outcomes. Though it is important for teachers to address bullying behaviors and schools to provide consistent polices for these behaviors, Fekkes and colleagues suggested that schools and families have constant communication about these issues (Fekkes et al., 2005). Therefore, in addition to examining school-level variables that may affect adolescent bullying program outcomes, future research should consider other family-level influences in program evaluations.

Many adolescents who bully experience difficult home environments that may affect their behaviors at school. Conflict between parents may also involve power imbalances, similar to bullying situations, and is a peer-like relationship that models to adolescents at home. Thus, the spousal subsystem may be an interesting dynamic to study in relation to bullying prevention programs. Adolescents with bully and bully-victim statuses perceive high levels of family conflict at home (Stevens, Bourdeaudhuij, & Oost, 2002). This conflict can indirectly effect the adolescent through other family subsystems. For example, adolescents who bully others have been found to come from homes with domestic and inter-parental violence and marital conflict is linked to aggression and bullying in early adolescence, and (Baldry, 2003; Christie-Mizell, 2003; Holt, Kaufman Kantor, & Finkelhor, 2009; Knous-Westfall, Ehrensaft, MacDonell, & Cohen, 2012; Morris, 2007). Though research in this area is limited, interactions between adolescents' parents may be relevant to their bullying program outcomes.

Conclusion

While these findings are specific to the *Be SAFE* bullying prevention curriculum, they are important to program research and evaluation. They suggest that adolescent's outcomes may not be solely reliant on the program, but there are distal program factors that contribute to whether programs seem to be effective. Understanding how parenting can affect program effectiveness is

important to program design. Applied researchers and evaluators could benefit from knowing if certain types of parenting facilitate or impede with the lessons given in similar programs. There is a possibility that we find effectiveness in subgroups that we do not see overall. The current study findings suggest possible differential effects of parenting dimensions on bullying attitudes as compared to bullying behaviors.

Future studies should continue to examine individual parenting styles and specific dimensions within the parenting style typologies to determine which dimensions affect adolescents' program outcomes. In addition, more salient parenting practices, as well as school and family-level variables should be tested as moderators of the change in bullying behaviors and attitudes. If findings are consistent, it may inform the incorporation of parents in programs and may identify appropriate dimensions to improve for parents.

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Appendix 1: Survey

Think about how many times you have done the following actions over the past school year.	**A lot**	**Several Times**	**Once or Twice**	**Never**
I pushed, shoved, tripped, or picked fights with students who I know are weaker than me.* **R**	¨	¨	¨	¨
I teased or said mean things to certain students.* **R**	¨	¨	¨	¨
I spread rumors about some students.* **R**	¨	¨	¨	¨
I told lies or made fun of some students using the Internet (email, instant messaging, cell phone text messaging, or websites).* **R**	¨	¨	¨	¨
I encouraged students to push, shove, or trip weaker students.***R**	¨	¨	¨	¨
I cheered when someone was beating up another student.* **R**	¨	¨	¨	¨
I joined in when students were teasing and being mean to certain students.* **R**	¨	¨	¨	¨
I joined in when students told lies about other students.* **R**	¨	¨	¨	¨
I stood by and watched other students getting hit, pushed, shoved, or tripped.* **R**	¨	¨	¨	¨
I ignored rumors or lies that I heard about other students.	¨	¨	¨	¨
I tried to defend the students who always get pushed or shoved around.	¨	¨	¨	¨
I asked an adult to help someone who was getting teased, pushed, or shoved around by other students.	¨	¨	¨	¨

Note: '**R'** indicates items that were reverse coded; '*' indicates retained items used in the bullying behaviors construct.

Read each of the following sentences carefully and mark only one box that best represents how strongly you agree or disagree with the sentence.	**Agree**	**Unsure**	**Disagree**
Kids who get picked on a lot usually deserve it.	¨	¨	¨
A bully is really a coward. **R**	¨	¨	¨
Kids should not complain about being bullied.	¨	¨	¨
It's funny to see kids get upset when they are teased.	¨	¨	¨
Kids who hurt others weaker than themselves should be told off. **R**	¨	¨	¨
You should not pick on someone who is weaker than you. **R**	¨	¨	¨
It makes me angry when a kid is picked on without reason. **R**	¨	¨	¨
I like it when someone sticks up for kids who are being bullied. **R**	¨	¨	¨

Note: '**R'** indicates items that were reverse coded.

The next section is about a parental figure that played a role in your growing up. Please answer these items on the parental figure that you interact with most at home.

Based on your home circumstances is this person your:

☐ Mother ☐ Grandfather ☐ Aunt ☐ Guardian

☐ Father ☐ Grandmother ☐ Uncle ☐ Other

Is this person a: ☐ Male ☐ Female

Please answer these items on the parental figure that you listed you interact with most at home.	**Yes, almost always**	**Yes, often**	**Yes, sometimes**	**No**
Does your parent sometimes make you feel really little? **R**	..	..	..	..
Do you think your parent loves you? **W**	..	..	..	..
If your parent punishes you, are they always fair? **W**	..	..	..	..
Is your parent sometimes harsh and unkind to you? **R**	..	..	..	..
Do you get a hug from your parent every now and then? **W**	..	..	..	..
If things are not going right for you, does your parent try to comfort or help you? **W**	..	..	..	..
Does your parent punish you for minor things? **R**	..	..	..	..
Do you think that your parent would help you if you had something really difficult to do? **W**	..	..	..	..
Does your parent make it obvious that they love you? **W**	..	..	..	..
Does your parent sometimes punish you even though you haven't done anything wrong? **R**	..	..	..	..
Does your parent blame you for everything? **R**	..	..	..	..
Does your parent sometimes give your brothers and sisters things that you don't get? (Brothers and sisters, or other children who live at your house.) **R**	..	..	..	..
Does your parent ever say things like ''you're too big to be still doing things like that''? **R**	..	..	..	..
Does your parent try to help you and to be understanding when you feel unhappy? **W**	..	..	..	..
Does your parent sometimes tell you off or hit you when there are others around? **R**	..	..	..	..
Is your parent interested in your hobbies and the things you like?	..	..	..	..

(For example, do you sometimes do things together, does your parent come along when you're playing sport, do they enjoy listening to what you have to say?) **W**				
Do you think that your parent is too firm with you? **R**	..	..	..	..
Are you sometimes disappointed in your parent because they won't give you what you want? **R**	..	..	..	..
Does your parent show you that they love you by hugging you or giving you a kiss? **W**	..	..	..	..
Is your parent interested in your school grades? **W**	..	..	..	..
If something goes wrong at home, are you the one who usually gets blamed for it? **R**	..	..	..	..
Do you have the feeling that your parent likes being with you? **W**	..	..	..	..
Does your parent show you that they love you? **W**	..	..	..	..
Does your parent sometimes hit you? **R**	..	..	..	..
Does your parent hit you more than you deserve? **R**	..	..	..	..
If your parent asks you to help with the daily chores and you don't do this, do they get angry? **R**	..	..	..	..
Does your parent sometimes hit you when you don't expect it? **R**	..	..	..	..
Does your parent sometimes tell you that you've done well? **W**	..	..	..	..
Do you feel that your parent considers your opinions? **W**	..	..	..	..
If you do something really well, does your parent seem to be very proud of you? **W**	..	..	..	..
If you have done something stupid, can you make up for it with your parent? **W**	..	..	..	..
Does your parent sometimes punish you for minor things? **R**	..	..	..	..
Do you have the feeling that you and your parent really like each other? **W**	..	..	..	..
Does your parent like you the way you are? **W**	..	..	..	..
Is your parent sometimes angry or unhappy about you without telling you why? **R**	..	..	..	..
Do you think that your parent is trying to make growing up a happy time for you and one in which you learn lots of things (by, for example, giving you good books, going on outings, sending you to camps and so on?) **W**	..	..	..	..

Note: **R** = Items measuring parental rejection; **W =** Items measuring parental emotional warmth.

Please read the following statements and make a check mark next to the group of sentences that most closely describe the parental figure that you said you interact with most at home.
___A My parent allows me to do almost anything I want to do. My parent gives me just about everything I ask them for. I am expected to make all my own decisions. My parent does not usually tell me if my choices are right or wrong. My parent rarely gives me rules. My parent rarely punishes or disciplines me.
___B My parent is willing to listen to my ideas and viewpoints. My parent is reasonable about discipline, and listens to my reasons if I have broken a rule. My parent and I discuss decisions that I have to make, and usually lets me make the final decision. My parent has expectations for me that are realistic. My parent encourages me to do things I am interested in and support the activities that I participate in. When I ask for things, my parent will help me, but they don't always give me everything.
___C My parent feels I must obey them. My parent does not allow me to make my own decisions very often. If I disagree with my parent, I am not allowed to discuss it with them. Whatever my parent way is right, and I am expected to accept it. I am not allowed to talk back to my parent. My parent's punishments are harsh and often unjust.

Appendix 2: Tables

Table 1: PCA for Bullying Behaviors Construct

Items	Component 1 Bullying Behaviors (perpetration & assisting)	Component 2 (Defending)
I pushed, shoved, tripped, or picked fights with students who I know are weaker than me.	**.73**	
I teased or said mean things to certain students.	**.71**	
I spread rumors about some students	**.69**	
I told lies or made fun of some students using the Internet (email, instant messaging, cell phone text messaging, or websites).	**.68**	
I encouraged students to push, shove, or trip weaker students.	**.66**	-.11
I cheered when someone was beating up another student	**.65**	
I joined in when students were teasing and being mean to certain students.	**.63**	
I joined in when students told lies about other students.	**.58**	.11
I stood by and watched other students getting hit, pushed, shoved, or tripped.	**.56**	-.14
I ignored rumors or lies that I heard about other students		**.84**
I tried to defend the students who always get pushed or shoved around.	-.13	**.80**
I asked an adult to help someone who was getting teased, pushed, or shoved around by other students.		**.47**
Variance	**32.4%**	**13.5 %**

Notes: Component 1 retained.

Table 2: Description of Survey Measures

Variable	# of Items	Alpha Coefficient	Sample Items/ responses
Parenting Styles	3		
Authoritarian	-	-	My parent does not allow me to make my own decisions very often.
Authoritative	-	-	My parent is willing to listen to my ideas and viewpoints.
Permissive	-	-	My parent allows me to do almost anything I want to do.
Parental Warmth	19	0.95	Do you feel that your parent considers your opinions?
Parental Rejection	17	0.86	Does your parent sometimes punish you for minor things?
Bullying Behaviors (T1)	9	0.83	I pushed, shoved, tripped, or picked fights with students who I know are weaker than me.
Bullying Behaviors (T2)	9	0.86	
Bullying Attitudes (T1)	8	0.53	You should not pick on someone who is weaker than you.
Bullying Attitudes (T2)	8	0.72	

Table 3: Correlations and Sample Descriptive Statistics

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**
1. Authoritarian	-								
2. Authoritative	-0.32**	-							
3. Permissive	-0.06	-0.26*	-						
4. Parental Warmth	-0.29	0.28*	-0.19	-					
5. Parental Rejection	0.21~	-0.41***	0.01	-0.46***	-				
6. Bullying Behaviors (T1)	0.05	-0.21~	0.25*	-0.31*	0.39***	-			
7. Bullying Behaviors (T2)	0.10	-0.27*	0.36***	-0.30*	0.34**	0.77***	-		
8. Bullying Attitudes (T1)	-0.32**	0.35**	-0.20~	0.31**	-0.32**	-0.47***	-0.45***	-	
9. Bullying Attitudes (T2)	-0.04	0.40***	-0.29**	0.37*	-0.33**	-0.53***	-0.43***	0.54**	-
N	87	87	87	70	70	84	79	84	79
M	-	-	-	2.39	0.70	0.44	0.58	1.99	2.03
SD	-	-	-	0.68	0.48	0.43	0.51	0.32	0.35
Skew	-	-	-	-1.40	0.76	2.41	1.80	-0.93	-1.12
SE	-	-	-	0.29	0.29	0.26	0.27	0.26	0.27

Note: ~ $p \leq 0.1$, *$p \leq 0.05$, **$p < 0.01$, ***$p \leq 0.001$

Table 4: Multi-level Regression Analysis and Interaction Effects

	N	*ICC*	*Design Effect*	*Intercept*	*SE*	*Slope*	*SE*
Level 1							
Bullying Behaviors	163	0.73	1.66	0.44	0.05	0.13***	0.04
Level 2							
Authoritarian				0.52	0.05	0.24	0.04
Authoritative				0.37***	0.05	0.12**	0.04
Permissive				0.92**	0.05	0.45*	0.04
Parental Warmth				0.91***	0.17	0.19	0.14
Parental Rejection				0.19*	0.08	0.13~	0.07
Cross-level Interactions							
Program x Authoritarian						0.13	0.12
Program x Authoritative						-0.04	0.08
Program x Permissive						0.33*	0.14
Program x Parental Warmth						-0.03	0.02
Program x Parental Rejection						0.00	0.08
Level 1							
Bullying Attitudes^	163	0.55	1.48	1.62	0.03	0.06	0.01
Level 2							
Authoritarian				1.17***	0.13		
Authoritative				1.71***	0.04		
Permissive				1.34*	0.15		
Parental Warmth				1.25***	0.13		
Parental Rejection				1.79***	0.07		
Cross-level Interactions							
Program x Authoritarian							
Program x Authoritative							
Program x Permissive							
Program x Parental Warmth							
Program x Parental Rejection							

Note: ~ $p \leq 0.1$, *$p \leq 0.05$, **$p < 0.01$, ***$p \leq 0.001$; ^ There was no significant variance in the unconditional slope to add predictors to level 2

Appendix 3: Figures

Figure 1: Change in Bullying Attitudes for Adolescents with Perceived Authoritarian Parents Compared to Other Parenting Perceived Styles

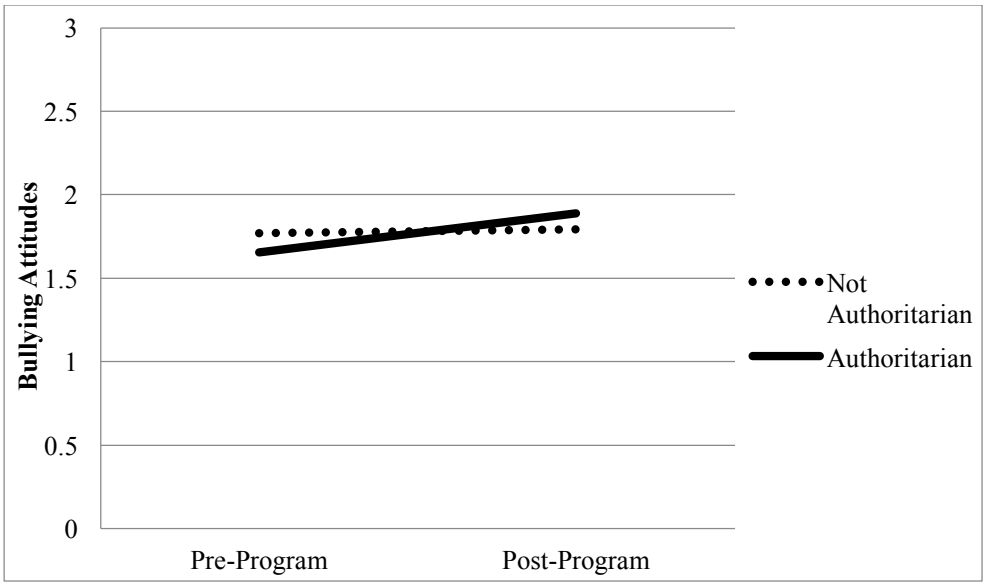

Figure 2: Change in Bullying Attitudes based on Adolescent's Perception of their Parents' Parenting Styles

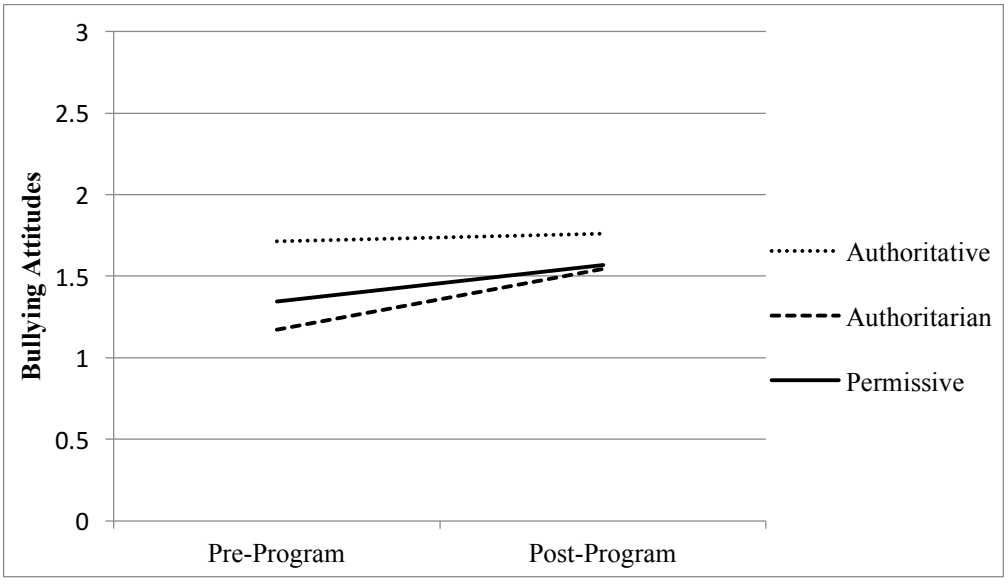

Figure 3: Change in Bullying Attitudes based on Adolescent's Perception of their Parents' Parenting Styles for Those with High Bullying Attitudes (+1 SD)

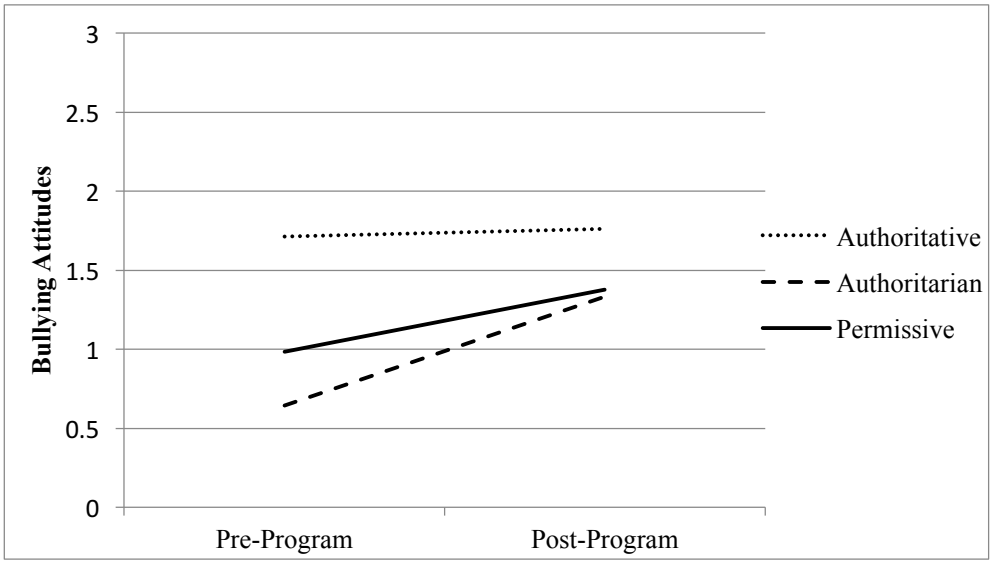

Figure 4: Change in Bullying Attitudes based on Adolescent's Perception of their Parents' Parenting Styles for Those with Low Bullying Attitudes (-1 SD)

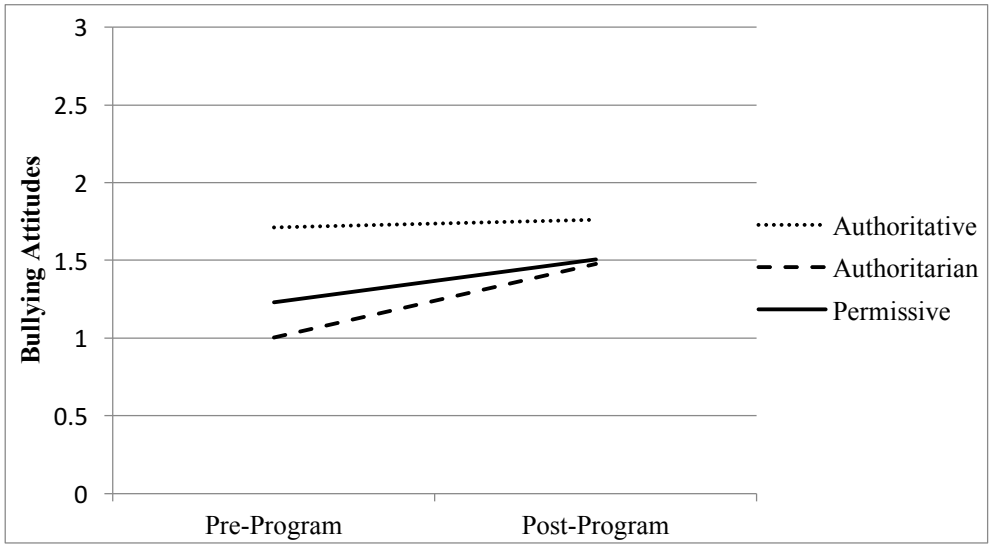

Figure 5: Change in Bullying Attitudes based on Adolescent's Perception of their Parents' Warmth and Rejection

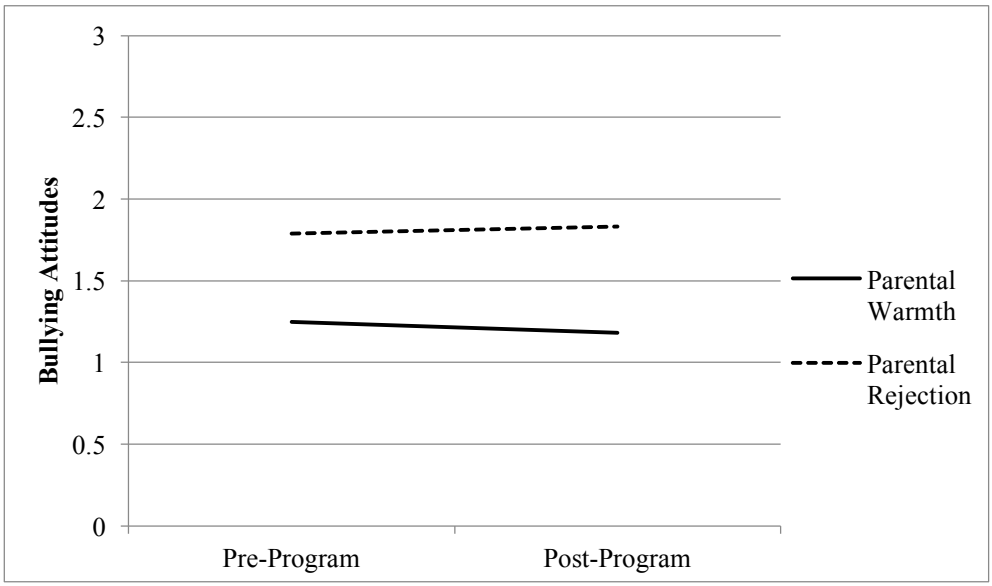

Figure 6: Change in Bullying Behaviors for Adolescents with Perceived Permissive Parents Compared to Other Perceived Parenting Styles

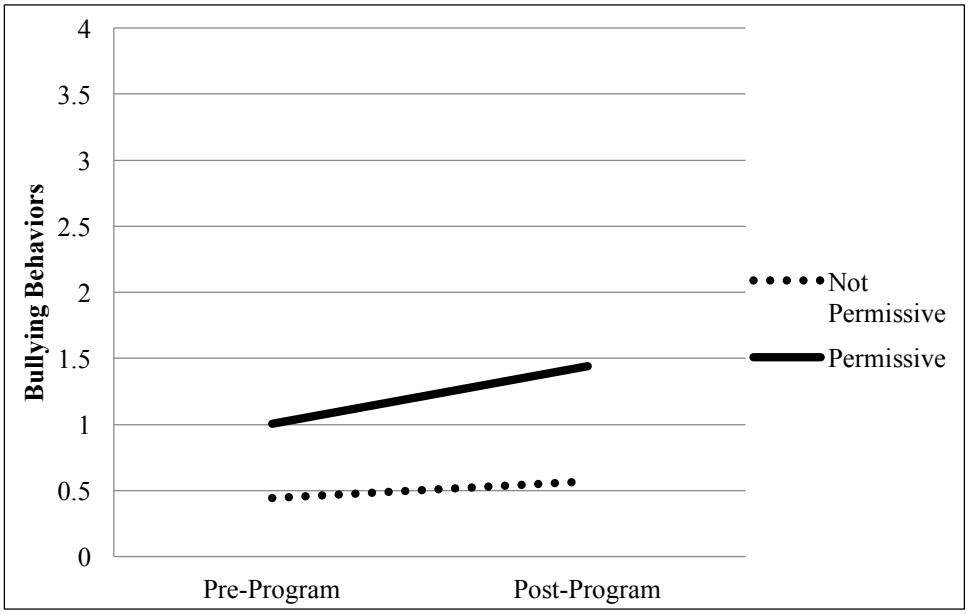

Figure 7: Change in Bullying Behaviors based on Adolescent's Perception of their Parents' Parenting Styles

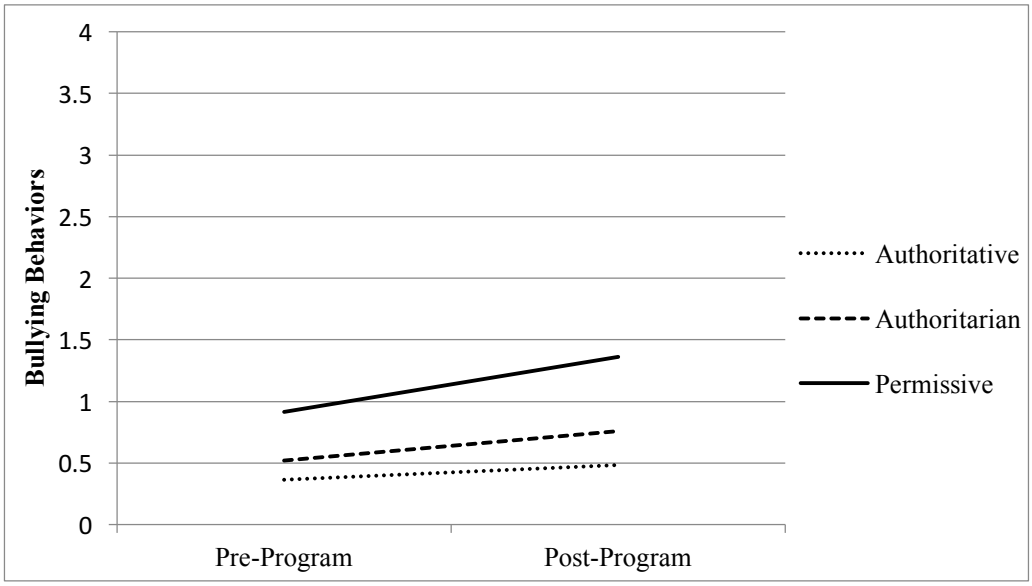

Figure 8: Change in Bullying Behaviors based on Adolescent's Perception of their Parents' Parenting Styles for Those with High Bullying Behaviors (+1 SD)

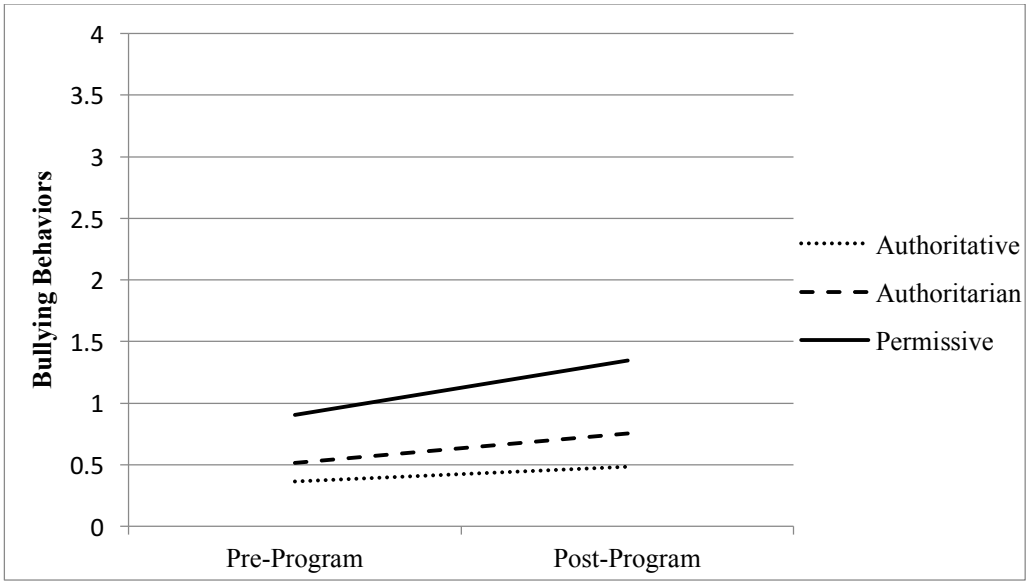

Figure 9: Change in Bullying Behaviors based on Adolescent's Perception of their Parents' Parenting Styles for Those with Low Bullying Behaviors (-1 SD)

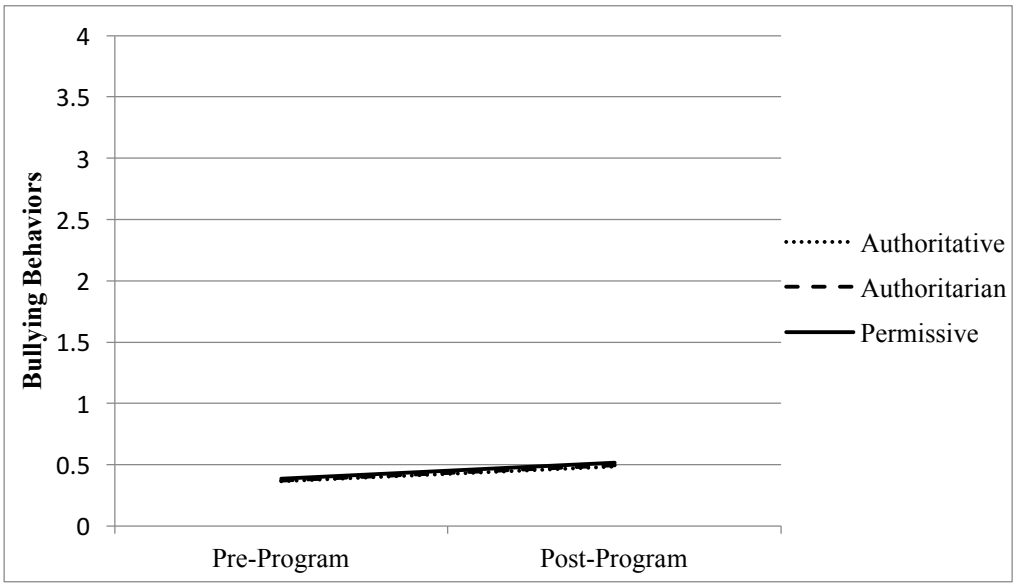

Figure 10: Change in Bullying Behaviors based on Adolescent's Perception of their Parents' Warmth and Rejection