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PERCEIVED PARENTAL CHARACTERISTICS AND NEIGHBORHOOD SUPPORT: HOW
DO THEY RELATE TO ADOLESCENTS' EXTERNALIZING BEHAVIOR PROBLEMS?

by

RACHEL WOLFE WHITE
Bachelor of Science, University of Central Florida, 2004

A thesis submitted in partial fulfillment of the requirements
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ABSTRACT

Externalizing behavior problems are related to many problematic outcomes for children and adolescents in their home, school, and community settings. Given the ramifications of difficulties related to externalizing behavior problems, the present study examines the relationships among adolescents' externalizing behavior problems, characteristics of adolescents' families, and their perceived neighborhood support in a sample of adolescents who are in the Sixth through Eighth Grades. As part of this study, adolescents were assessed one time in their school setting with a set of brief questionnaires. In particular, adolescents completed measures assessing their levels of externalizing behavior problems, characteristics of their families, their perceptions of neighborhood support and of their teachers, and their ratings of their own acculturation. Results suggest that, although a moderation relationship does not exist between parental warmth, neighborhood support, and the development of externalizing behavior problems, variables such as maternal warmth, overall parental emotional support, and overall neighborhood support are important predictors of the development of externalizing behavior problems. Further regression analyses reveal that, in addition to neighborhood and parental characteristics, adolescents' perceived social acceptance and global self-worth are significant predictors of adolescents' externalizing behavior problems. In conclusion, when identifying adolescents who are at risk for the development of externalizing behavior problems, an ecological conceptualization encompassing culture, community, and home environments can be helpful.

Dedicated to my loving parents, Alan and Susan Wolfe

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INTRODUCTION

Adolescence as a Developmental Period

Adolescence is a stage of life characterized by many changes, including physical and hormonal changes, the development of postconventional morality, and other cognitive developments. In addition to these changes, adolescence is a time to develop identity and form relationships. Typically, identity is formed through social interactions with peers, family members, and other members of the community (Sussman, Pokhrel, Ashmore, & Brown, 2007). As part of this identity seeking process, feelings of autonomy are important to the developing adolescent (Vander Zanden, Crandell, & Crandell, 2000). In the time before adolescence, parents make most decisions concerning children's lives. In contrast, during adolescence, parents still maintain some indirect control over their adolescents simply by their choice of the neighborhood in which they reside and the schools in which they place their adolescents (e.g., public or private). Despite the fact that some parental control is necessary and unavoidable, psychological overcontrol places adolescents at greater risk for problematic behaviors (Barber, 1992; Simons, Whitbeck, Beaman, & Conger, 1994) and can minimize adolescents' feelings of autonomy. Thus, parents and adolescents must work together to find the appropriate balance of adolescent autonomy and parental control.

Although adolescents are struggling to form a sense of autonomy at home, conformity to peer groups and the peer pressure that accompanies being part of such a group are a prominent part of the lives of adolescents as well (Vander Zanden et al., 2000). This conformity to peer

groups is likely a result of the importance that adolescents place on socialization and specific group membership. In fact, the quality of peer relationships is associated with the overall level of behavior problems exhibited by children. The quality of such relationships often can lead to further behavior problems in adolescence. More specifically, aggression is linked to unstable peer relationships (Coie & Cillessen, 1993; Hymel, Rubin, & Rowden, 1990). Further, children who are unable to form peer relationships are at risk for several negative outcomes in adolescence, such as delinquency, substance use, and associations with other deviant peers (Dishion, 2000). For example, Olson (1992) reports that children whose instructors rate them as being noncompliant and hyperactive also are described as being problematic by their peers. Stormshak and Webster-Stratton (1999) further support Olson's (1992) findings, showing that teacher ratings of children's behavior problems at school are related to failure with peers and negative conflict tactics. Children's social difficulties with peers may lead to peer rejection, driving these children to seek the friendship or company of peers similar to themselves. Such associations could further reward their socially incompetent behaviors. Overall, this hypothesis is supported by research that shows that peer rejection is associated with later behavior problems (Alvarez & Ollendick, 2003).

Although many changes are occurring during adolescence and the importance of adolescents' peer relationships are noted, the importance of families in the lives of adolescents cannot be understated. Historically, Hall (1904) portrays adolescence as a time of storm and stress, in which parent-adolescent interactions consist of maladjustment, rebellion, and turmoil. Alternatively, Bandura and Kupers (1964) indicate that only ten percent of adolescents who actually are considered deviant truly fit Hall's (1904) description. Consistently, more recent

research suggests that fewer than ten percent of families endure parent-adolescent interactions that include chronic and escalating levels of serious conflict (Holmbeck, 1996). Such statistics suggest that another theory, individuation theory, may better explain the experience of most adolescents and their families. In particular, individuation theory suggests that positive emotional attachments between parents and their adolescents allow for cohesiveness and adaptability in their interactions (Noack & Puschner, 1999) and for the development of individuality and connectedness during adolescence (Noack & Kracke, 1998; McKinney & Renk, 2008). Thus, most adolescents are happy, responsible, and well-adjusted (Offer, Ostrov, & Howard, 1981).

A small portion of adolescents exhibits externalizing behavior problems, including delinquent and antisocial behavior, however. Such externalizing behavior problems often have their origin in childhood and, in some cases, grow or develop further in adolescence and adulthood (Beyers, Bates, Pettit, & Dodge, 2003). In fact, the development of externalizing behavior problems in childhood is a risk factor for later juvenile delinquency, adult crime, and violence (Betz, 1995; Farrington, 1989; Moffitt, 1993; Vander Zanden et al., 2000). For example, chronic youth offenders commit more than twice the amount of crimes that chronic adult offenders commit (Vander Zanden et al., 2000). Further, between 1988 and 1992, arrest rates went up for youth under the age of 18-years for crimes such as aggravated assault, homicide, and forcible rape (Fox, 1996). Thus, the externalizing behavior problems manifested during adolescence are connected with the negative outcomes that may be experienced in adulthood, such as crime, deviance, economic hardship, academic difficulties, employment hardship, and marital discord (Vander Zanden et al., 2000). Given this relationship between externalizing

behavior problems in childhood, adolescence, and adulthood as well as the potential resulting costs to society, externalizing behavior problems as well as factors that may protect adolescents from such problems deserve further study.

Externalizing Behavior Problems

Liu (2004) describes externalizing behavior problems as a group of behavior problems that present themselves through overt behaviors that have a negative effect on the external environment. Diagnostically, the *Diagnostic and Statistical Manual of Mental Disorder-Fourth Edition-Text Revision (DSM-IV-TR; APA, 2000)* considers Attention-Deficit/Hyperactivity Disorder, Conduct Disorder, and Oppositional Defiant Disorder to all fall within the realm of disruptive or externalizing disorders. These externalizing disorders consist of disruptive, hyperactive, and aggressive behaviors. Often, children that exhibit externalizing behavior problems also are suffering internally (e.g., with symptoms of anxiety and depression), resulting in internalizing and externalizing disorders being highly comorbid (Hinshaw, 1987; Liu, 2004). Theoretically, however, ‘externalizing behavior’ is a broad term that envelopes the concepts of aggression, delinquency, and hyperactivity, with difficulties in self-control remaining a central characteristic in this conceptualization (Mason, Cauce, Gonzalez, Hiraga, & Grove, 1994). For the purpose of this paper, the term ‘externalizing behavior problems’ will be considered to be interchangeable with the terms ‘disruptive behavior,’ ‘antisocial,’ ‘undercontrolled,’ and ‘conduct problems.’

To better understand the construct of externalizing behavior problems, a description of aggression, delinquency, and hyperactivity follows. Aggression consists of the harm of, or the threat to harm, other adults, children, or animals physically or verbally (Ferris & Grisso, 1996).

Aggression can be either instrumental (i.e., controlled and purposeful in order to achieve a desired goal) or hostile (i.e., a response to aggression that is uncontrolled or emotionally charged, causing pain or injury to the victim; Liu, 2004). Overall, males tend to be more aggressive than females. Additionally, males engage in more physical aggression, whereas females engage in more relational aggression (e.g., rumor spreading, gossip; Liu, 2004). In contrast, Liu (2004) describes delinquency as the nonviolent counterpart to aggression, characterized by acts such as lying, cheating, theft, drug use, and vandalism (Liu, 2004). Similar to aggression, males tend to engage in delinquency more often than females (Liu, 2004). Further, a positive relationship exists between aggression and delinquency, with both believed to be at least partially learned behaviors (Huesmann, Eron, & Yarmel, 1997; Liu, 2004; Shahinfar, Kuperschmidt, & Matza, 2001).

In addition to aggression and delinquency, hyperactivity is considered to be a problematic behavior. According to the *DSM-IV-TR* (APA, 2000), hyperactivity refers to both physical overactivity (e.g., fidgeting, running or climbing excessively, talking excessively) as well as impulsivity (e.g., interrupting or intruding on others, blurting out answers before questions are completed). Such behaviors are more common in males and typically decrease in severity with age (Liu, 2004). Similar to aggressive and delinquent behaviors, hyperactive behaviors exhibited by children also are predictive of higher rates of conduct problems later on and of criminal behavior in adulthood (Barkley, Fischer, Edelbrock, & Smallish, 1990; Mannuzza, Klein, & Addalli, 1991). Although hyperactive children do not always develop antisocial behaviors (e.g., aggression and delinquency), children who experience conduct problems and hyperactivity have the worst predicted outcomes and are sometimes labeled as ‘fledgling psychopaths’ (Lynam,

1998). Due to their high level of comorbidity, it is hypothesized that conduct problems actually mediate the relationship between hyperactivity and antisocial behavior (Liu, 2004). Thus, although the constructs that fall under externalizing behavior problems are defined separately, they also are overlapping and interrelated in their behavioral manifestations.

Mechanisms Promoting Externalizing Behavior Problems

Several models are used to understand or explain the mechanisms that seem to promote externalizing behavior problems. These models include ecological models (Bronfenbrenner, 1979; Mason et al., 1994), emotional and behavioral regulation models (Batum & Yagmurlu, 2007), and biosocial models (Liu, 2004). These models will be discussed here briefly to present possible contexts for the development of externalizing behavior problems in children and adolescents.

Bronfenbrenner (1979) first developed the ecological model. Based on this model, individuals' interactions with their environment, their changing physical or social setting, the relationships among the settings frequented by these individuals, and society's impact on these settings all play a role in the development of different behaviors. Thus, each individual is involved in four systems that can be arranged in concentric circles. These systems include the microsystem (i.e., the social relationships and physical settings in which each individual is involved each day), the mesosystem (i.e., the interrelationships among the various settings in which each individual is submerged), the exosystem (i.e., social structures that directly or indirectly affect each individual), and the macrosystem (i.e., the cultural patterns of a society). Given the interactions of these systems, family management practices occur in the context of the culture and community in which the family lives. In turn, family management practices are

related to children's behavior, such as the exhibition of externalizing behavior problems. Thus, variables representing each of these systems are important to measure when examining the behavior of children and adolescents.

Similar to the suggestion proposed by Bronfenbrenner's (1979) ecological model, the work of Mason and colleagues (1994) supports an ecological model in which children's emotional regulation is learned and reinforced constantly within the context of the family. This process occurs within the context of greater social forces, with social and community forces impacting the family, specifically the behavior of parents. Thus, according to this model, children and adolescents are influenced directly by their family (i.e., the microsystem) and influenced indirectly by the social network to which the parents belong (i.e., exosystem). Given these interrelationships, Mason and colleagues (1994) indicate that the social environment does play a role in the development of externalizing behavior problems. Thus, with regard to ecological models, the behavior of children and adolescents is influenced by the many interrelated contexts that are included in this model, ranging from more immediate familial influences to more indirect community and societal influences.

In contrast to the ecological model, the biosocial model proposed by Liu (2004) is an adaptation of the biosocial model of violence (Raine, Brennan, & Farrington, 1997). The biosocial model of violence examines biological and social risk factors during the pre- and perinatal periods as predictors of violence. Although the biosocial model of externalizing behavior problems examines similar risk factors, externalizing behavior problems are examined as the model's main outcome (rather than violence). This model posits that psychosocial (e.g., social adversity) and biological (e.g., birth complications, malnutrition) risk factors are related

directly to the development of externalizing behavior problems. In particular, these risk factors are hypothesized to play both separate roles as well as reciprocal roles in the development of externalizing behavior problems. Further, other variables can mediate or moderate the relationships between these risk factors and externalizing behavior problems. For example, an individual's intellectual functioning can mediate this relationship (e.g., biological and psychosocial factors are related to an individual's intellectual functioning, which then is related to that individual's degree of externalizing behavior problems). In contrast, an individual's biological sex can moderate this relationship (e.g., this relationship is stronger in boys versus girls; Liu, 2004).

In addition to these ecological and biosocial models, models of emotional and behavioral regulation may be important in understanding the development of externalizing behavior problems. For example, previous research shows that emotional regulation and behavioral regulation are related negatively to externalizing behavior problems (Batum & Yagmurlu, 2007; Cole, Zahn-Waxler, Fox, Usher, & Welsh, 1996; Eisenberg et al., 2001). Emotional regulation is defined as the inhibition, maintenance, and enhancement of positive and negative emotional reactions (Batum & Yagmurlu, 2007). For example, Cole and colleagues (1996) indicate that children who have appropriate levels of emotional regulation can transform displays of negative emotion and that overregulation and underregulation of emotional expressivity predict maladjusted emotional regulation. In contrast, behavioral regulation is defined as attentional processes, inhibitory control, and impulsivity, all of which are based on temperament (Posner & Rothbart, 2000). The regulation of these processes is related to the suppression of inappropriate responses, the shifting and managing of emotions, and the inhibition of antisocial behaviors

(Eisenberg, Fabes, Guthrie, & Reiser, 2000; Lengua, 2003; Posner & Rothbart, 2000). For example, Eisenberg and colleagues (2001) measure and observe the behaviors (i.e., both internalizing and externalizing behavior problems) and dispositional regulation of preschool- and early elementary school-age children. Their findings suggest that children who exhibit undercontrolled behaviors are classified as having externalizing behavior problems, supporting a relationship between a lack of behavioral regulation and externalizing behavior problems.

Similar to the ecological model, examinations of emotional and behavioral regulation in children show that parents play a role in children's acquisition of these regulation abilities. For example, children whose parents express negative affect frequently and are lacking in warmth in their interactions display underregulation of emotion and are more likely to develop externalizing behavior problems relative to children whose parents express positive emotions and display warmth in their interactions (Eisenberg et al., 2001). The explanation for this finding is that, by directly and indirectly modeling and teaching ways to manage emotion, parents contribute to the socialization of their own children's emotional experiences. In addition, parents who directly display warmth (e.g., supportiveness, affection, approval, positive emotion) are more likely to regulate their children's emotions through their own emotional expressions (Eisenberg et al., 2001).

In support of these relationships, Eisenberg and colleagues (2001) examine the emotional expressions of elementary school-age children who are asked to view pictures of pleasant, unpleasant, and neutral situations (i.e., children at a birthday party, a frightened child, and abstract art, respectively). While the children view these pictures, their expressions are videotaped secretly. In a second portion of the study, these children's parents are asked to view

the same pictures with their children. For each picture, parents are instructed to view the picture for a few seconds and to then take 45 seconds to discuss the slide with their children. Again, the session is videotaped for the coding of expressions and discussions. As part of the coding scheme, parental warmth is coded on the basis of smiling, laughing, positive tone of voice, and verbal and physical affection. Further, externalizing behaviors and unregulated emotional expressivity are measured. Findings of this study indicate that parents' discussion of emotion, warmth, and positive emotional interactions with their children are related to children's regulation of emotional expression and problematic externalizing behaviors (Eisenberg et al., 2001). Given the importance of parents across the models describing potential mechanisms in the development of externalizing behavior problems in children, parent-child interactions should be examined more closely as risk and protective factors for such behavior problems.

Parent-Child Interactions and Externalizing Behavior Problems

As already mentioned, parents can provide many risk factors for and protective factors from externalizing behavior problems. In fact, the affective tone of the parent-child relationship (e.g., whether it includes warm and nurturing behavior), parental disciplinary styles, and familial characteristics all are critical to the family environment and, in turn, to the adjustment of children and adolescents. For example, family conflict, particularly that which involves the exchange of coercive behaviors between parents and their children, are implicated in the development and maintenance of externalizing behavior problems (Barber, 1992; Conger, Conger, Elder, & Lorenz, 1992; Conger et al., 1993; Patterson, Reid, & Dishion, 1998). Given such findings, further understanding of the interrelationships between family characteristics and externalizing behavior problems is needed. In particular, more information needs to be gained regarding the

characteristics of families that may prove to be risk or protective factors with regard to adolescents' externalizing behavior problems. Some of these characteristics are discussed here.

Parental Caregiving. Thus far, many different theories (e.g., cognitive, social learning, attachment) suggest that there is a relationship between the characteristics of parents' caregiving and the behavior of their children and adolescents. More specific to this study, research finds consistently that there is a relationship between parental supportiveness and the psychological adjustment of children and adolescents (McCarty, Zimmerman, Digiuseppe, & Christakis, 2005). In particular, parental supportiveness refers to the emotional relationship that parents and children share. Within the context of the parent-child relationship, parental supportiveness behaviors may range from being warm, responsive, and child-centered to being rejecting, unresponsive, and failing to foster a connection between parents and their children. Similar to parental supportiveness, parental rearing behaviors also are associated with the emotional well-being of children and adolescents (Roelofs, Meesters, Ter Huurne, Bamelis, & Muris, 2006). As in the case of parental supportiveness, parental rearing encompasses a range of parental characteristics, including warmth and acceptance. Lastly, parental control (i.e., overprotection versus the promotion of autonomy) plays a role in the development of behavior problems in children (Roelofs et al., 2006).

Unfortunately, when parents exhibit deficits in the characteristics that are relevant to supportiveness and rearing, the psychological consequences for children and adolescents may be problematic. In particular, low parental supportiveness is related to a number of poor psychological outcomes that begin in childhood and can continue to affect children later in their lives. For example, children who are anxious and depressed perceive their parents as providing

less support and acceptance than do children who do not experience anxious and depressed symptoms (Messer & Gross, 1995; Siqueland, Kendall, & Steinberg, 1996). Further, women who are anxious report that they experienced a lack of warmth and support in their childhood homes (Laraia, Stuart, Frye, & Lydiard, 1994). Adults who are anxious and depressed also report that their childhood home environments were characterized by low levels of warmth as well as by high levels of control, rejection, and criticism (Reolofs et al, 2006). Overall, parents' lack of warmth and overprotection promote children's risk of developing both internalizing and externalizing disorders (Muris, Meesters, & van den Berg, 2003; Muris & Merckelbach, 1998; Wasserman, Miller, Pinner, & Jaramillo, 1996).

Of particular importance to the current study, a relationship between parental support and the development of externalizing behavior problems is established firmly. In particular, a lack of parental warmth, involvement, and nurturing behaviors is linked to the levels of aggression and externalizing behavior problems exhibited by children (Conger et al., 1992; Deater-Deckard, 1996; Pettit & Bates, 1989; Simons, Robertson, & Downs, 1989; Stormshak, Bierman, McMahon, & Lengua, 2000). For example, Stormshak and colleagues (2000) examine five parenting practices and their relationship to oppositional, hyperactive, and aggressive behaviors in Kindergarten. The five parenting practices include punitive discipline (i.e., yelling, nagging, threatening), inconsistency, warmth and positive involvement, physical aggression, and spanking. Based on the findings of this study, warmth and positive involvement, independent of punitive discipline and physical aggression, are predictors of oppositional behavior.

Further, using only self-report measures, Barnow, Lucht, and Freyberger (2005) examine obstetric complications, temperament, self-esteem, family influences (including perceived

parenting), and peer group characteristics as they relate to the development of aggressive and delinquent problems in a sample of German adolescents. In this study, perceived parenting is defined as emotional warmth and rejection. The results of this study suggest that, although perceived parental aggression is associated with the development of aggression, parental warmth is not. This finding may be a reflection of the different types of parenting values held by this German sample relative to American samples that are examined in other studies. In addition, the researchers note that their study has a small sample size and that the results may be affected by the social desirability of participants' responses (Barnow et al., 2005).

Chen, Wu, Chen, Wang, and Cen (2001) also examine parental warmth, guidance, and coercive parenting practices in relation to the development of externalizing behaviors in a cohort of 4-year old children living in China. The researchers for this study are particularly interested in whether results commonly found in Western culture would generalize to Eastern culture, regardless of the different parenting values that each culture holds. For this study, children are brought into a laboratory playroom in groups of four where they engage in free play sessions as well as more structured, challenging tasks. During the duration of these tasks, aggressive behaviors are recorded. In addition to the laboratory observations, family interactions are observed in the home, with children again engaging in both free play and a more structured session. Parenting and child compliance and cooperativeness are coded. Results of this study indicate that maternal warmth is associated negatively with aggression in children with high compliance scores (i.e., those children who are highly cooperative with low levels of defiance and protest). In contrast, according to this study, paternal warmth is related negatively to aggression in children who are noncompliant and defiant (Chen et al., 2001). Thus, although

Chinese culture has exceedingly different parenting values relative to those valued in American culture, warmth is still related to the development (or the prohibition) of externalizing behavior problems in similar ways.

In a final example, Lindahl (1998) examines more general processes within families. In Lindahl's (1998) study, couples are videotaped engaging in a marital problem discussion task, and families are videotaped discussing a recent family argument. Observers code rejection, coerciveness, number of commands given, and emotional support toward children, among other variables. Based on the findings of this study, parental rejection and coercion are associated with children's oppositional and defiant characteristics. Although each of the studies discussed above are unique, all these studies report similar results, in that parental warmth (or a lack thereof) is predictive of externalizing behavior problems in children and adolescents. Thus, examining parental characteristics in relation to the outcomes experienced by children and adolescents is important and may provide further information regarding risk factors for and protective factors against the development of externalizing behavior problems.

Discipline. Parental discipline styles also are related to the caregiving that parents' exhibit toward their children and may lend more information about parental caregiving as a potential precursor to children's externalizing behavior problems. In terms of discipline styles, children whose parents use harsh control, such as physical discipline (i.e., hitting and spanking), are more likely to exhibit externalizing behavior problems, including aggressive behaviors (Baumrind, 1993; Maccoby & Martin, 1983; Rothbaum & Weisz, 1994). Similarly, parental restrictive control (e.g., scolding and removing objects from children as punishment) is associated with the development of externalizing behavior problems (Coie & Dodge, 1998). In

similar research, McLoyd and Smith (2002) concur that behavior problems are linked to the use of spanking as part of discipline, but only when children's perceived emotional support is low. Further, Patterson (1982) describes coercive parenting behaviors, characterized by irritable and angry exchanges between parents and children as a means to coerce compliance, as 'nattering.' He hypothesizes that, although nattering is used in an attempt to promote compliance, the negative commands and threats result in passive noncompliance, defiance, and aggressive acts.

Other researchers examine parenting and discipline using different paradigms. For example, authoritative and authoritarian parenting styles are terms originally coined by Baumrind and Black (1967), who describe their interest in the socialization of younger children. In particular, they suggest that authoritative parenting is firm in nature; however, parents that adopt this particular style typically give their children explanations or reasons for their reactions, behaviors, and decisions without sacrificing warmth in their parent-child relationships. Research also suggests that authoritative parenting styles create confident, academically competent children who are less likely to get into trouble as a result of problematic behavior (Lamborn, Mounts, & Steinberg, 1991). In further support of these findings, Steinberg, Blatt-Eisengart, and Cauffman (2006) examine the effects of different parenting styles (i.e., authoritarian, authoritative, indulgent, and neglectful parenting) on the development of juvenile offenders. Adolescents with authoritative parents report greater temperance and more empathy than those who have parents with other parenting styles. In addition, the findings from this study indicate that the children who have authoritative parents are less likely to engage in problematic behavior when compared to their peers (Steinberg et al., 2006).

In contrast, authoritarian parenting is characterized by punitive, forceful discipline that is meant to maintain rigid control within a traditional or value-oriented framework. This parenting style stresses obedience and is more mixed in terms of positive and negative predicted outcomes. Children raised in authoritarian homes present as obedient and compliant to adult standards. They also perform well in school and are unlikely to be involved with deviant peers. These children, however, lack self-confidence and maintain lower perceptions of their own social and academic ability (Lamborn et al., 1991). This specific parenting style is more effective and has more positive outcomes with children from a lower socioeconomic status and with minority adolescents (relative to their Caucasian, middle class counterparts; Cauffman, 2006). Further, a longitudinal study shows that children as young as 2-years old who are raised by cold, unresponsive, and uninvolved parents are at greater risk for developing aggression, defiance, and delinquency later in life relative to their peers who are raised by more supportive parents (McCarty et al., 2005).

Family Characteristics. Rather than examine externalizing behavior problems using parental characteristics only, some studies examine outcomes for children and adolescents in relation to the overall characteristics of the family system. For example, in cohesive family types (i.e., families characterized by warmth, affection, and flexible but well-defined boundaries) and adequate family types (i.e., those that are characterized by elevated psychological control and high warmth), children tend to develop high levels of parent-child attachment security as well as constructive coping strategies and to develop more normatively in the psychological sense. The opposite can be said of children growing up in enmeshed family types (i.e., those that are characterized by high levels of discord, weak maintenance of relationship boundaries,

hostility, and coercion) and disengaged family types (i.e., those that are characterized by high levels of adversity, low levels of support, and rigid, emotionally cold parenting styles). That is, these children are at risk for developing externalizing behavior problems (Davies, Cummings, & Winters, 2004). Thus, findings from studies that examine general family characteristics are quite similar to those of studies that examine more specific parenting and discipline characteristics.

Coercion Theory. To explain the development of externalizing behavior problems in the context of parent and family characteristics such as those noted above, Patterson (1982) outlines the components of coercion theory. Coercion theory posits that irritable, inconsistent parenting interacts with noncompliance in children to produce coercive exchanges (i.e., those that are characterized by force, intimidation, and control) between parents and children. Coercive discipline is portrayed through parents' hostility, scolding and nagging about unimportant issues, threats of punishment without parents following through with any type of discipline, responding to children with aggression, and giving in to noncompliant and/or aggressive behaviors. When parents give in to noncompliant behaviors, children actually receive a positive consequence that helps to maintain their noncompliant behaviors. Parents also may give less attention and reinforcement to the good behaviors that their children display for fear that it will lead to more misbehavior (Barkley, 1997). Barkley (1997) also describes Patterson's (1982) theory in the context of coercive parenting acting as a negative reinforcement for children's aggressive or coercive ways. This act of negatively reinforcing aggressive behavior may escalate both parents' and children's negative behaviors toward each other, leading to more intense aggressive and coercive acts.

Summary. Parenting practices, regardless of the manner in which they are examined in research, are related to the externalizing behavior problems (e.g., disruptive and antisocial behaviors) exhibited by children and adolescents (Patterson, 1982; Patterson et al., 1998). In particular, research shows that coercive parenting coupled with a lack of monitoring (i.e., parents not knowing where their children are, with whom their children are, what their children are doing, and/or when their children will be home) is related directly to antisocial behavior in males. Coercive parenting also may increase the chances that children will socialize with deviant peers (Conger, Lorenz, & Elder, 1991; Kim, Hetherington, & Reiss, 1999; Patterson & Dishion, 1985; Simons, Johnson, Beaman, Conger, & Whitbeck, 1996). Thus, the home environment that is provided by parents through their parenting and discipline characteristics contribute greatly as risk or protective factors for the externalizing behavior problems exhibited by children and adolescent.

In reviewing this literature, it should be noted that the findings regarding the relationship between parental characteristics and the development of externalizing behavior problems in boys and girls are mixed. For example, boys are more likely than girls to develop externalizing behavior problems when their families exhibit adverse characteristics (Rothbaum & Weisz, 1994). Further, there is conflicting evidence as to whether or not externalizing behavior problems are related more significantly to the parenting behaviors of mothers or fathers. In particular, Phares and Compas (1992) report that, in a sample of 9- to 11-year olds, fathers' behavior plays a more important role than mothers' behavior in the development of externalizing behavior problems in boys. In contrast, Kim and colleagues (1999) did not find fathers' behavior to be a significant predictor of externalizing behavior problems; instead, this study reports that

negativity in mothers and stepfathers is a significant predictor of externalizing behavior problems in adolescents, regardless of the sex of the children in the family.

Neighborhood Characteristics and Externalizing Behavior Problems

Although the relationship between parenting characteristics and the development of externalizing behavior problems is noted, the models presented earlier (e.g., the ecological model) suggest that the sociocultural context and the characteristics of the community in which children and adolescents live also may be related to the development of externalizing behavior problems. Thus, cultural and community characteristics also should be examined as potential risk and protective factors for the development of externalizing behavior problems in children and adolescents. One of the premiere longitudinal studies in the field of developmental psychology (Werner, 1989) investigates the effects of negative environmental conditions (i.e., more specifically, rearing conditions) on the physical, cognitive, and psychosocial development of children.

In this study conducted and described by Werner (1989), almost 700 children born on the island of Kauai in 1954 are followed from birth until the age of 32-years. One trend noted by Werner (1989) is that developmental outcomes of almost all biological risk factors (e.g., perinatal trauma) are dependent on the quality of the environment in which children are reared. For example, in this study, children who experience prenatal and perinatal complications only exhibit psychological impairment at the ages of 10- and 18-years when these complications are combined with poverty, familial discord, and other persistently poor rearing conditions. Werner (1989) also identifies several protective factors for the optimal development of children, even in the face of poverty or family strife. Such protective factors include support outside the home

(e.g., a favorite minister or youth leader), participation in extracurricular activities, and an ability to network with neighbors, classmates, and elders in times of crisis. Thus, there is some initial evidence that characteristics of society and communities are related to the externalizing behavior problems exhibited by children and adolescents.

With regard to particular community characteristics, socioeconomic and neighborhood risk are two highly correlated constructs that are of interest for the development of externalizing behavior problems in children and adolescents. According to Schonberg and Shaw (2007), socioeconomic risk refers to being raised in a family of low socioeconomic status, whereas neighborhood risk refers to residence in a poor or dangerous community. Thus far, findings suggest that both socioeconomic risk and neighborhood risk predict adolescents' exhibition of externalizing behavior problems (Ingoldsby & Shaw, 2002; Leventhal & Brooks-Gunn, 2000; McLoyd, 1998). Further, socioeconomic and neighborhood risk both have direct and indirect relationships to the development of externalizing behavior problems. Direct effects include environmental differences in the quality of schools, available child care, positive role models, prosocial peer influences, and opportunities for prosocial recreational activity (Ingoldsby & Shaw, 2002; Leventhal & Brooks-Gunn, 2000; Tolan, Sherrod, Gorman-Smith, & Henry, 2004). Indirect effects include increased exposure to familial distress and negative life events, both of which can lead to family conflict and ineffective discipline strategies (McLoyd, 1998; Tolan et al., 2004).

Other community variables also may be important predictors of the development of externalizing behavior problems. For example, Sampson, Raudenbush, and Earls (1997) theorize that the social organization of a community (i.e., collective efficacy) may be related to the

development of externalizing behavior problems in adolescents. Neighborhoods with residents who have a low level of trust in each other and are unwilling to intervene on other residents' behalfs indirectly support the congregation of deviant peer groups. This congregation of deviant peer groups then creates more opportunities for adolescents to engage in behaviors that may result in the development of externalizing behavior problems (Sampson et al., 1997). Many studies support this hypothesis, in that positive relationships are found between the development of externalizing behavior problems and the amount of time that is spent with deviant peers (Erickson, Crosnoe, & Dornbusch, 2000; Keena, Loeber, Zhang, & Stouthamer-Loeber, 1995; Kim et al., 1999).

Although the aforementioned research focuses on the development of externalizing behavior problems in the context of high-risk neighborhoods, it is equally important to understand the development of these problems in high socioeconomic status (SES) neighborhoods. For example, Beyers, Loeber, and Wilkstrom (2001) point out that, although boys living in higher SES neighborhoods are less likely to exhibit externalizing or delinquent behaviors than their counterparts in lower SES neighborhoods, high SES neighborhoods are not necessarily a safeguard from committing delinquent acts. In fact, according to Beyers and colleagues (2001), a significant proportion of adolescent males in higher SES neighborhoods report committing a violent act on at least one occasion. Overall, such findings suggest that it is more likely for adolescents, regardless of whether they are from higher or lower SES neighborhoods, to develop delinquent-type behaviors as individual, familial, and neighborhood risk factors compound (Stouthamer-Loeber, Loeber, Wei, Farrington, & Wilkstrom, 2002). Given such findings, it is particularly important to examine familial characteristics in the context

of neighborhood characteristics as predictors of the development of externalizing behavior problems in children and adolescents.

In particular, it is possible that there may be differential relationships between risk and protective factors in the family and the type of neighborhood in which children and adolescents reside. For example, physical discipline in families that live in ‘safe’ neighborhoods may be related to distance and conflict in parent-child relationships (Baldwin, Baldwin, & Cole, 1990). Such distance and conflict, in turn, may be related to aggression and externalizing behavior problems (Baumrind, 1993; Maccoby & Martin, 1983; Rothbaum & Weisz, 1994). In contrast, physical discipline in families that live in ‘dangerous’ neighborhoods may decrease the opportunity for adolescents to socialize with deviant peers (Baldwin et al., 1990). As socialization with deviant peers is a risk factor for the development of externalizing behavior problems (Conger et al., 1991; Kim et al., 1999; Patterson & Dishion, 1985; Simons et al., 1996), such a relationship may actually protect adolescents from developing externalizing behavior problems.

The neighborhood context may be related to parent-child relationships in other ways as well. ‘Dangerous’ neighborhoods may cause more stress within the family context, which then may be related to ineffective discipline strategies (McLoyd, 1990; Taylor, 1997). Such ineffective discipline strategies are likely similar to those used with coercive discipline (e.g., inconsistency, hostility, aggression, giving in to noncompliance; Patterson, 1982). Thus, it could be hypothesized that extremely stressful environments may hinder parents’ ability to show warmth, empathy, and support, the three parental characteristics that are important in the psychological development of children and adolescents (Conger et al., 1992; Deater-Deckard,

1996; Khaleque & Rohner, 2002; Pettit & Bates, 1989; Rohner, 1986; Simons et al., 1989; Stormshak et al., 2000).

In fact, Plybon and Kliwer (2001) examine the association of neighborhood types, qualities of family environments, and the development of externalizing behavior problems in preadolescent African American children. Their findings indicate that children living in very poor, moderate crime neighborhoods exhibit more behavior problems than children living in low crime, low poverty areas. They also suggest that family stress mediates the association between neighborhood type and children's behavior problems. Lastly, family cohesion (i.e., a feeling of togetherness or getting along well) moderates the association of neighborhood type and children's behavior problems. In other words, children in the most impoverished neighborhoods with high family cohesion exhibit fewer behavior problems relative to those living in the same neighborhood in low cohesive households (and similar levels of behavior problems to those in low crime, low poverty areas). Thus, family cohesion, stability of routines, and parental support are protective factors in children's development (Gorman-Smith, Tolan, Zelli, & Huesmann, 1996; Kliwer & Kung, 1998; Wyman, Cowen, Work, & Parker, 1991) and are related more strongly to adolescents' adjustment than the actual risk-level of the neighborhoods in which families reside (Bowen & Chapman, 1996).

In addition to the support that families receive in their neighborhoods, particular individuals in neighborhood communities may be particularly important. For example, perceived support from teachers (in addition to parents and peers) is related to even better outcomes for adolescents (e.g., better school attendance, higher school satisfaction, less problematic behavior; Rosenfeld, Richman, & Bowen, 2000). Teachers that use strict control and

discipline in addition to undermining students' sense of belonging in a supportive environment tend to have students who develop feelings of disengagement and alienation. Both of these feelings can lead to the development of externalizing behavior problems (e.g., disruptive behavior) and poor academic achievement (Murray & Greenberg, 2000). Thus, similar to the findings outlined by Werner (1989) regarding support outside of the home, teachers may represent an important protective factor for adolescents in conjunction with the characteristics of their families and their neighborhoods.

The Present Study

Given the importance of examining parental and neighborhood characteristics in relation to adolescents' externalizing behavior problems, the present study focuses on externalizing behavior problems in middle school-age adolescents in the context of both perceived parental and perceived neighborhood characteristics. It should be noted that levels of parental and neighborhood support reported herein reflect the perceptions of this particular sample. Furthermore, individual adolescent perceptions of 'neighborhood' may vary from individual to individual. For example, for one participant, 'neighborhood' may be the particular street that she or he lives on. In contrast, to another participant, 'neighborhood' may be the entire surrounding community. Therefore, the results of this study should be considered within the perceptual context of the participants that are sampled here.

It is hypothesized that adolescents' perceptions of parental warmth and support will be related to lower levels of externalizing behavior problems and higher levels of perceived competence. Further, it is expected that adolescents' perceptions of neighborhood support will act as a moderator in the relationship between parental warmth and adolescents' externalizing

behavior problems. In other words, those adolescents who perceive that their parents exhibit higher levels of warmth and support and who perceive higher levels of neighborhood support will exhibit the lowest levels of externalizing behavior problems, regardless of the SES of the community in which they live or their level of acculturation. In families where parental support and warmth are perceived as low, higher levels of perceived neighborhood support will be related to lower levels of externalizing behavior problems in adolescents. It also is predicted that, even in families where perceived parental support and warmth are high, lower levels of perceived neighborhood support may weaken the possibility of an optimal outcome in adolescents.

Uniqueness of the Present Study

The present study is unique for several reasons. First, it encompasses a comprehensive age range for middle school-age adolescents, including adolescents who will be in the Sixth, Seventh, and Eighth Grades (i.e., those who are 12- to 14-years of age). When the findings of this study are compared to those that already exist in the literature, examining the differential relationships among parental characteristics, neighborhood characteristics, and adolescents' externalizing behavior problems will be helpful in understanding which adolescents are at more risk of developing externalizing behavior problems. Second, a broad range of parental characteristics is associated with the development of externalizing behavior problems in children and adolescent. The current study is interested mainly in parental warmth and whether these characteristics will serve as protective factors, regardless of neighborhood support.

Third, this study will allow an examination of the ecological models described earlier. This particular study encompasses the ecological framework in the context of the variables

measured, the analytic procedures that are used, and the overall conceptualization of findings. Thus, this study truly embraces an ecological framework on all levels. Finally, this study examines the perceptions of individual adolescents, particularly regarding their own behavior, the characteristics of their parents, and the support that they perceive from their neighborhood. Other studies suggest that individuals' perceptions may be important in understanding their outcomes relative to the reality of their situation (Zuckerman, Knee, Kieffer, & Gagne, 2004); thus, this study will address this gap in the literature.

METHOD

Participants

A total of 208 adolescents (i.e., 106 males, 98 females, and 4 adolescents who did not endorse their sex) are participants in this study. This sample of adolescents was recruited through a middle school in Central Florida. Participants were not compensated in any way. These participants range in age from 10- to 15-years, with a mean age of 12.06-years ($SD = .95$ -years). The majority of these participants are White non-Hispanic (55.2%), with the remainder endorsing diverse racial and ethnic backgrounds (i.e., 21.2% are Hispanic, 7.9% are Biracial, 5.9% are Asian, 5.4% are Black non-Hispanic, 1.0% are Native American, 1.0% are Middle Eastern, and 2.5% are from some other ethnic background). The majority of participants (88.5%) have progressed in a traditional way through the academic system (i.e., they have not repeated or skipped any grades). Finally, most participants (63.0%) do not ride a bus to school.

With regard to family characteristics, most participants report that their parents are married to each other (60.3%), with the rest of participants endorsing that their parents have some other type of marital status (i.e., 13.0% of mothers and 10.6% of fathers are divorced, 2.4% of mothers and 2.4% of fathers are separated, and 13.9% of fathers and 11.5% of mothers are remarried). Participants report having an average of 2.26 siblings ($SD = 1.86$). Also, most participants do not have additional family members (e.g., grandparents, aunts, and uncles) living in their home (68.3%). Participants' socioeconomic status is generally within the upper-middle echelon, with an average Hollingshead score of 39.80 ($SD = 12.25$). The Hollingshead Four Factor Index of Social Status (Hollingshead, 1975) ranges from 8 to 66. Therefore, this score

suggests that the average parent is a professional in a position such as teaching or office management.

Measures

Demographics . A *Demographics* sheet is included in this study as an assessment of participants' basic demographic information regarding themselves (e.g., sex, age, grade, race/ethnicity) and their parents (e.g., occupation, if known by the participant).

Externalizing Behavior Problems. The *Youth Self-Report* (YSR; Achenbach & Rescorla, 2001) is a widely used scale that assesses the social and emotional development of clinically referred and typically developing adolescents who range in age from 11- to 18-years. This measure includes 120-items that cover two major domains: competencies and behavior problems. With regard to the behavior problems portion of this measure, participants rate how well each behavior problem item describes them on a Likert-type scale, ranging from 0 (*not true of them*) to 2 (*very true of them*). Although scores for Internalizing, Externalizing, and Total Behavior Problems can be derived from this measure, only the Externalizing Behavior Problems scale is used as the main outcome variable in this study. Generally, these score are computed as normalized T scores with a mean of 50 and a standard deviation of 10, with scores that fall at 60 or higher being considered clinically noteworthy relative to same-age peers. The YSR has adequate reliability in assessing a broad range of emotional and behavioral problems experienced by adolescents. More specifically, the YSR has high concurrent validity (>.80) in previous studies and is associated significantly with criteria from the *Diagnostic and Statistical Manual of Mental Disorders (DSM-IV*; Achenbach & Rescorla, 2001; APA, 2000).

Competencies. The *Harter Self-Perception Profile for Children* (SPPC; Harter, 1985) is used to examine participants' perceptions of their competencies across a variety of domains. The SPPC was developed in 1985 and is normed on children and adolescents from diverse ethnic, social, and economic backgrounds. It is recommended for use with children and adolescents in Third through Eighth Grade. The scale consists of 36 items measuring competence or adequacy in seven areas, as perceived by the child or adolescent. These areas are Scholastic Competence, Athletic Competence, Social Acceptance, Physical Appearance, Close Friendship, Behavioral Conduct, and Global Self-Worth. This measure has adequate internal consistency reliability, ranging from 0.71 to 0.86, with four independent sample groups (Harter, 1985). Additionally, when comparing clinical and nonclinical populations, the scale has acceptable between group invariance in previous studies, indicating that the scale measures the same characteristics in both clinical and nonclinical groups (Veerman, Tjeerd ten Brink, Straathof, & Treffers, 1996). For the purposes of this study, the Social Acceptance (*Cronbach alpha* = .77), Scholastic Competence (*Cronbach alpha* = .82), and Global Self-Worth (*Cronbach alpha* = .72) scales are utilized.

Perceptions of Parental Warmth and Support. The *Lum Emotional Availability of Parents* (LEAP; Lum & Phares, 2005) scale is used to examine participants' perceptions of their mothers' and fathers' emotional availability. This scale consists of 15 items that are answered on a six-point Likert scale, ranging from 1 (*Never*) to 6 (*Always*). Each item is answered separately for mothers and fathers and includes statements such as [My mother/father] "supports me" and "is emotionally available to me." The scale is used typically in clinical and nonclinical samples and demonstrates reliability and validity as a measure of parental emotional availability in

previous studies (Lum & Phares, 2005). Cronbach alpha scores for this study are .98 and .97 for mother and father items, respectively.

The *EMBU-A* (Egna Minnen av Barndoms Uppfostram- My Memories of Upbringing; Gerlsma, Arrindell, van der Veen, & Emmelkamp, 1991) is a scale developed to measure participants' perceptions of the upbringing behavior used by their parents. It consists of 64 items that can be used to derive four factors (i.e., Rejection, Emotional Warmth, Overprotection, and Favoring the Adolescent). Items are answered on a four-point Likert scale, ranging from 1 (*Never*) to 4 (*Always*). For the purpose of the current study, the Emotional Warmth factor is derived from participants' responses for both their mothers (*Cronbach alpha* = .93) and their fathers (*Cronbach alpha* = .95). All factors of the EMBU have good internal consistency in previous studies (Gerlsma et al., 1991). Further, the EMBU is used in several countries and consistently retains its reliability and factor structure (Gerlsma et al., 1991).

Perceived Neighborhood Support. The *Sense of Community Index* (SCI; Perkins, Florin, Rich, & Wandersman, 1990) is used to assess participants' perceptions of their sense of community. This measure consists of 12 true-false items. The SCI has relatively high reliability ($\alpha = .80$) for both adults and adolescents in previous studies. For the purposes of the present study, the language of the SCI is altered slightly. The original wording for the SCI uses the word "block" to refer to an area of a neighborhood. In the current study, "block" is replaced with "neighborhood." For example, the item "I think my block is a good place for me to live" is replaced with "I think my neighborhood is a good place for me to live." The Cronbach alpha score for the SCI is .81 in this study.

School Support. The *Student Perceived Availability of Social Support Questionnaire* (SPASSQ; Vedder, Boekaerts, & Seegers, 2005) presents 11 school-related situations involving either instructional support or emotional support. For each item, the participant indicates the degree to which they consider parents, teachers, and peers as relevant support providers. Overall, the questionnaire includes five scales (alphas are from Vedder et al., 2005): 1) Instructional Support by Teachers, consisting of five items with an alpha of 0.78; 2) Emotional Support by Teachers, consisting of six items with an alpha of 0.77; 3) Instructional Support by Parents, consisting of five items with an alpha of 0.75; 4) Emotional Support by Parents, consisting of six items with an alpha of 0.78; and 5) Social Support by Peers, consisting of 11 items with an alpha of 0.86. In this study, the Emotional Support by Teachers (*Cronbach alpha* = .82), Emotional Support by Parents (*Cronbach alpha* = .86), and Social Support by Peers (*Cronbach alpha* = .91) scales are used.

Ethnic Identity/Acculturation. This study uses the *MultiGroup Ethnic Identity Measure* (MEIM-R; Phinney & Ong, 2007) as a measure of participants' identification and/or adherence to their ethnic origin in general terms. The MEIM-R was developed to assess components of ethnic identity common to all ethnic/cultural groups, including individuals' sense of group membership/affiliation and attitudes toward their own ethnic group. It consists of six items, consisting of two factors (i.e., Exploration and Commitment) and takes approximately five minutes to complete. The MEIM-R is derived from the ten-item MEIM, which has a Cronbach alpha of .83 for Exploration and .89 for Commitment. Items that originally loaded poorly and were considered to be unreliable predictors were dropped from the ten-item scale to create the

MEIM-R. For this study, the Exploration (*Cronbach alpha* = .80) and Commitment (*Cronbach alpha* = .86) factors are examined separately.

Additionally, the *Psychological Acculturation Scale* (PAS; Tropp, Erkut, Garcia Coll, Alarcon, & Vazquez Garcia, 1999) is used as a measure of participants' attachment and belonging to their minority cultural community versus the majority cultural community. It consists of ten items and is normed with Spanish and English speakers. The alpha coefficients in a previous study are .90 and .83 for the Spanish and English versions, respectively (Tropp et al., 1999). In this study, the PAS has acceptable internal consistency (*Cronbach alpha* = .92).

Procedure

Upon receipt of approval from the Institutional Review Board (IRB) of the University of Central Florida and from the Orange County Public School System, the principal of a local Central Florida middle school was contacted via telephone so that the study could be explained and permission could be requested for student participation. Once verbal consent was obtained from the principal, the principal was provided with permission forms for each of the students in each grade level. These permission forms were sent home with students for their parents during the first week of the new school year. Therefore, each parent received a permission form at the beginning of the school year. Student participants returned permission forms directly to their teachers. Teachers then provided the signed permission forms to the principal's office, where a list of students who had permission to participate was kept. After all permission forms were returned, this list of potential student participants then was distributed to homeroom teachers. The principal then arranged three days (i.e., one for each grade level) for student participants to

complete their questionnaire packet with the assistance of the graduate student investigator and her research team.

Participation took place during homeroom period in a specific location (e.g., the multi-purpose room). This arrangement allowed students to participate without missing class. Prior to completing the questionnaire packet, each student participant was asked to review and sign an assent form that briefly described the study and requested students' assent for participation. Student participants were given 45-minutes to complete the questionnaire packet. Members of the research team were available to answer questions during this time. Following completion of their questionnaire packets, student participants received a debriefing form providing more information concerning the purpose of the study.

RESULTS

Descriptive Statistics

Means and standard deviations are provided in Table I so that participants' responses can be put into context. Means for the Youth Self-Report Externalizing Behavior Problems score fall within the Nonclinical range on average (i.e., based on clinical cut-offs provided for this measure). The means for the Harter total scores for social acceptance, school competency, and overall self worth also are moderate. In general, these scores suggest that, based on the normative data provided for this measure, the student participants in this sample are relatively well-adjusted. In contrast, the means for the total scores for mothers and fathers on the Lum Emotional Availability of Parents scale and the My Memories of Upbringing scale are relatively high when compared to the possible range of scores for these measures. In addition, the SPASSQ total scores for parent, teacher, and peer support and the total score from the Sense of Community Index are moderate relative to the possible range of scores. In general, these scores suggest that participants have a generally positive perception of the parenting characteristics of their mothers and fathers as well as of their neighborhood characteristics. Finally, based on the potential range of scores for each respective measure, the total scores from the Exploration Scale from the Multi-Ethnic Identity Measure, the Commitment Scale from the Multi-Ethnic Identity Measure, and the Psychological Acculturation Scale are in the moderately high, high, and moderate ranges, respectively.

Differences Between Male and Female Participants

Independent samples *t* tests are conducted in order to examine any significant differences that may exist between male and female participants in their reports of their own behavioral problems, competencies, parental characteristics, neighborhood characteristics, and acculturation. See Table 1. When compared to female participants, male participants have a significantly less positive perception of their overall peer emotional support, $t(165) = -4.44, p < .001$. Male and female participants did not differ significantly on any of the other measures examined in this study. As a result, data for male and female participants is examined collectively for the remainder of the analyses in this study.

Correlational Analyses

Correlational analyses are conducted to examine the relationships among participants' self-reported externalizing behavior problems and competencies, their perceptions of their parents' characteristics (e.g., emotional warmth and support), their perceptions of neighborhood support, and their own level of acculturation. See Table 2.

Participants' self-reported externalizing behavior problems are related significantly to their perceived academic competence, $r = -.30, p < .001$, and global self-worth, $r = -.49, p < .001$, indicating that lower levels of externalizing behavior problems are related to higher levels of perceived academic competence and overall self-worth. Participants' self-reported externalizing behavior problems also are related significantly to their perceptions of maternal warmth, $r = -.37, p < .001$, paternal warmth, $r = -.26, p < .001$, maternal emotional availability, $r = -.31, p < .001$, paternal emotional availability, $r = -.28, p < .001$, and overall parental emotional support, $r = -.41, p < .001$. These findings suggest that adolescents who perceive their parents to be warm and emotionally supportive are less likely to report higher levels of externalizing

behavior problems. In addition to parental characteristics, participants' self-reported externalizing behavior problems are related significantly to their overall perception of support and efficacy within the neighborhood, $r = -.29, p < .001$. Similar to parenting characteristics, this result suggests that adolescents who have a high, positive perception of support within their communities are less likely to report externalizing behavior problems.

As would be expected, participants' perceptions of maternal warmth are related significantly and positively to their perceptions of paternal warmth, $r = .32, p < .001$, maternal emotional availability, $r = .82, p < .001$, paternal emotional availability, $r = .32, p < .001$, and overall parental emotional support, $r = .52, p < .001$. Participants' perceptions of maternal warmth also are related significantly and positively to perceived emotional support from teachers, $r = .18, p < .02$, and overall perceived neighborhood support, $r = .29, p < .001$. Results also suggest that higher levels of perceived maternal warmth are related significantly to participants' more positive perceptions of their academic competence, $r = .36, p < .001$, their social acceptance, $r = .18, p < .02$, and their global self-worth, $r = .29, p < .001$. Finally, perceived maternal warmth is related positively to participants' commitment to their ethnic group, $r = .19, p < .009$. Thus, results suggest that adolescents who have a more positive perception of maternal warmth hold positive perceptions of many aspects of their ecological systems.

Also consistent with expectations, participants' perceptions of paternal warmth are related significantly and positively to maternal emotional availability, $r = .28, p < .001$, paternal emotional availability, $r = .92, p < .001$, and overall parental emotional support, $r = .24, p < .001$. Similar to perceived maternal warmth, perceived paternal warmth is related significantly to

overall perceptions of neighborhood support, $r = .16, p < .04$, and to emotional support provided by teachers, $r = .20, p < .01$. Like perceived maternal warmth, perceived paternal warmth is related positively and significantly to participants' perceived global self-worth, $r = .25, p < .001$. These relationships suggest that adolescents who perceive their fathers as warm are also more likely to perceive other positive characteristics of their mothers and fathers, are more likely to have a more positive perception of their neighborhood, and are more likely to perceive themselves in a more confident light. Finally, in addition to participants' perceptions of paternal warmth being related significantly to their commitment to their ethnic group, $r = .15, p < .05$, perceived paternal warmth is related significantly to participants' desire to explore and learn about their ethnic group further, $r = .20, p < .008$. This finding indicates that adolescents who see their fathers as warm are also more likely to exhibit or feel a desire to better understand their ethnic background.

Not surprisingly, participants' perceptions of maternal emotional availability are related significantly and positively to their perceptions of paternal emotional availability, $r = .43, p < .001$, and overall parental emotional support, $r = .60, p < .001$. Like maternal warmth, maternal emotional availability is related significantly and positively to perceived academic competence, $r = .27, p < .001$, perceived social acceptance, $r = .18, p < .02$, and global self-worth, $r = .36, p < .001$. Similar to other parenting characteristics, perceived maternal emotional availability is related significantly to adolescents' perceived support from their neighborhoods, $r = .29, p < .001$, and perceived emotional support from teachers, $r = .24, p = .002$. Finally, maternal emotional availability is related significantly to participants' perceived emotional support from peers, $r = .18, p < .02$. In conclusion, adolescents who view their mothers as being emotionally

available to them are also more likely to perceive other aspects of their lives more positively, including parents' other parenting characteristics, personal characteristics (e.g., academic competence, social acceptance), and neighborhood/community support characteristics.

In addition to the abovementioned correlations, paternal emotional availability is related to participants' global self-worth, $r = .32, p < .001$, and perceived neighborhood support, $r = .19, p < .01$. This finding reveals that adolescents who perceive their fathers to be emotionally available are also more likely to report more positive beliefs about themselves and the neighborhood in which they reside. Finally, paternal emotional availability also is correlated significantly with participants' desire to explore their ethnic group, $r = .24, p < .001$, and their commitment to their ethnic group, $r = .21, p < .005$. This finding indicates that adolescents are more likely to be committed to their ethnic group and have a desire to understand their ethnic group when they rate their fathers as having higher levels of emotional availability.

Finally, neighborhood support is correlated significantly with perceived academic competence, $r = .20, p < .01$, perceived social acceptance, $r = .21, p < .006$, and global self-worth, $r = .26, p < .01$. These relationships suggest that adolescents who have more positive perceptions of their neighborhood also have higher confidence in their social acceptance and self-worth.

Regression Analysis: Neighborhood Support as a Moderator?

To examine the hypothesis that perceived neighborhood support moderates the relationship between perceived parental characteristics and levels of externalizing behavior problems, hierarchical regression analyses are conducted in accordance with the recommendations of Baron and Kenny (1986). Acculturation is entered in Block 1 as a control

variable, followed by parental characteristics (i.e., warmth, emotional availability, and emotional support) in Block 2. Next, neighborhood characteristics (i.e., overall community support within a neighborhood context, peer emotional support, and teacher emotional support) are added in Block 3. Finally, interaction terms between parental warmth and neighborhood support are added in Block 4. See Table 3.

In Block 1, acculturation status is entered as a control variable and does not predict externalizing behavior problems significantly, $F(3, 117) = .80, p < .50$. In Block 2, the regression equation becomes significant with the addition of participants' perceptions of their parents' characteristics, $F(8, 117) = 4.12, p < .001$. In this block, maternal warmth ($p < .02$) and overall parental emotional support ($p < .003$) are significant predictors of externalizing behavior problems, indicating that higher levels of maternal warmth and overall parental emotional support are related to lower levels of externalizing behavior problems. When neighborhood characteristics are added in Block 3, the regression equation remains significant, $F(11, 117) = 3.70, p < .001$. In particular, maternal warmth ($p < .002$) and general parental emotional support ($p < .002$) are significant predictors in the equation. Additionally, perceived neighborhood support is a significant predictor ($p < .04$). Finally, to examine neighborhood support as a possible moderator in the relationship between perceived parental warmth and levels of externalizing behavior problems, relevant interaction terms (i.e., maternal warmth X neighborhood support and paternal warmth X neighborhood support) are added to the regression equation. Although the equation remains significant, $F(13, 117) = 3.04, p < .001$, the interaction terms are not significant predictors, indicating that neighborhood support does not moderate the relationship between parental warmth and participants' externalizing behavior problems. General

parental emotional support ($p < .003$) and neighborhood support ($p < .03$) continue to contribute significantly to the prediction of participants' externalizing behavior problems, and perceived maternal warmth continues to make a marginal contribution ($p < .06$). Thus, although neighborhood support does not serve as a moderator in the relationship between parental warmth and adolescents' externalizing behavior problems, parental and neighborhood characteristics both contribute significantly to the prediction of adolescents' externalizing behavior problems.

Hierarchical Regression: A Bigger Picture

Given that neighborhood support is not a moderator in the relationship between parental characteristics and participants' externalizing behavior problems, an additional regression analysis is conducted in order to further understand the relationships among perceived neighborhood support, perceived parental characteristics, participants' own competencies (i.e., academic competence, social acceptance, global self-worth), and participants' externalizing behavior problems. In this hierarchical regression analysis, perceived level of acculturation is added in Block 1 as a control variable, followed by perceived neighborhood characteristics in Block 2. Perceived parental characteristics are added in Block 3, followed by participants' perceptions of social acceptance, academic competence, and global self-worth in Block 4. The variables are added in a fashion concordant with Bronfenbrenner's (1979) ecological model. See Table 4.

In Block 1, acculturation status does not predict externalizing behavior problems significantly, $F(3, 144) = .99, p < .40$. Participants' perceptions of overall neighborhood support characteristics, such as community, peer, and teacher support, are added in Block 2, resulting in a significant regression equation, $F(6, 144) = 2.67, p < .02$. A closer examination reveals that

participants' overall sense of community support within a neighborhood context is a significant predictor ($p < .001$), with higher levels of perceived neighborhood support being related to lower levels of externalizing behavior problems. Next, participants' perceptions of parental characteristics are added in Block 3, resulting in a significant regression equation, $F(11, 144) = 4.64, p < .001$. In this block, participants' perception of neighborhood support continues to be a significant predictor ($p < .02$). In addition, maternal warmth ($p < .02$), maternal emotional availability ($p < .05$), and overall parental emotional support ($p < .001$) are significant predictors. With the addition of participants' perceived competencies in Block 4, the regression equation remains significant, $F(14, 144) = 6.46, p < .001$. In this block, neighborhood support ($p < .04$), maternal warmth ($p < .01$), maternal emotional availability ($p < .03$), and perceived parental emotional support ($p < .006$) remain significant. In addition, perceived social acceptance ($p < .004$) and perceived global self-worth ($p < .001$) are significant predictors.

DISCUSSION

The purpose of this study is to examine the relationships among parental caregiving characteristics, neighborhood support, and adolescents' externalizing behavior problems. Further, this study provides an opportunity to examine adolescents' externalizing behaviors within the context of an ecological framework. More specifically, given the information that was collected as part of this study, adolescents' perceptions and experiences within each level of Bronfenbrenner's (1979) model can be examined. In other words, the contribution of adolescents' culture, their neighborhood support, their parents' caregiving characteristics, and their own competencies all could be examined as predictors of adolescents' externalizing behavior problems.

Understanding the relationships among these variables is important for several reasons. Adolescents who exhibit externalizing behavior problems are at heightened risk for a number of negative outcomes, such as juvenile delinquency, violence, and an increase in risk-taking behavior (Betz, 1995; Farrington, 1989; Moffitt, 1993; Vander Zanden et al., 2000). Therefore, preventions and interventions targeting children and adolescents who are at high-risk for the development of such behaviors is of the utmost importance for the well being of both the children and adolescents themselves, their families, and the community at large. Unfortunately, it is not uncommon for interventions to take place only at the individual or familial level when working with high-risk adolescents while community and overarching cultural factors are overlooked (Henggeler, Schoenwald, & Pickrel, 1995).

Of course, it cannot be denied that individual and parental characteristics are correlated highly with adolescents' externalizing behaviors. In fact, the present study indicates that adolescents' individual characteristics (i.e., global self-worth and academic competence) and perceptions of their parents' characteristics (e.g., maternal and paternal warmth, emotional availability, and emotional support) are correlated significantly and negatively with their ratings of their own externalizing behavior problems. Consistent with previous research, our study shows that community (Ingoldsby & Shaw, 2002; Leventhal & Brooks-Gunn, 2000; McLoyd, 1998) and cultural factors (Dinh, Roosa, Tein, & Lopez, 2002) also are related to adolescents' externalizing behavior problems. The important contribution of this study, however, is examining these variables in conjunction with each other. In particular, results from correlational analyses in this study support the conceptualization that adolescents' externalizing behavior problems are related closely to each level of Bronfenbrenner's (1979) ecological model, which is displayed in a series of concentric circles.

With regard to the inner most circle of Bronfenbrenner's (1979) model, that which examines individuals' personal beliefs about themselves, adolescents' ratings of their own academic competence and overall global self-worth are related to their ratings of their externalizing behavior problems. Thus, adolescents who perceive themselves as competent in school and who hold positive perceptions of their own worth report fewer externalizing behavior problems. Mikami and Hinshaw (2006) report similar findings and indicate that perceived competence in school may be indicative of students who are connected more closely to school and less connected to deviant peer groups. If this is the case, these personal beliefs also would be beneficial to the third level of Bronfenbrenner's (1979) model (i.e., the level highlighting

community factors), thus supporting the idea that variables from each level of the model are important and are interconnected in unique ways.

As would be expected, adolescents' global self-worth (i.e., adolescents' overarching self-concept) also is related to their ratings of their externalizing behavior problems, with more positive perceptions of self-worth being related to decreased reports of externalizing behavior problems. It is likely that adolescents' personally held beliefs about themselves are developed over time and result from their experiences with their families and with their peers (McClun & Merrell, 1998). In fact, in a study looking at adolescent females, both self-concept and family characteristics together predict externalizing behavior problems (Barber, Ball, & Armistead, 2003). Such findings also would support Bronfenbrenner's (1979) model. In fact, results from the analyses of the present study indicate that adolescents' global self-worth also is related to both perceived parental characteristics and perceived support from within the community (e.g., neighborhood support, peer emotional support, and perceived social acceptance), providing further support for examining adolescents' externalizing behavior problems in the context of the many levels of an ecological model.

Surprisingly, adolescents' ratings of their social acceptance are not correlated directly with their ratings of their externalizing behavior problems. Typically, research shows that personal beliefs about acceptance by peers is related negatively to externalizing behavior problems given that adolescents who feel rejected by their peers often resort to seeking out acceptance from deviant peer groups (Dishion, 2000; Rosenfeld et al., 2000). One explanation for the findings of the present study is that males and females from this sample differ significantly in their perceptions of overall peer emotional support, with male adolescents

reporting lower levels of emotional support from peers relative to female adolescents. The fact that peer emotional support and social acceptance are closely related constructs may explain why adolescents' perceptions of social acceptance are not related to externalizing behavior problems.

In fact, peer emotional support shows differential relationships for male and female adolescents in this sample. Male adolescents who report lower levels of peer emotional support report higher levels of externalizing behavior problems, as would be expected. In contrast, female adolescents who report higher levels of peer emotional support report higher levels of externalizing behavior problems. It may be that female adolescents in this particular sample who are feeling higher levels of emotional support from peers become more likely to engage in risky or acting-out behaviors that parents or teachers would find inappropriate. This differential relationship across the sexes may help explain the insignificant findings for these particular variables. Thus, male adolescents may be at particular risk for externalizing behavior problems because of their tendency to demonstrate fewer connections to their peers, whereas female adolescents may experience the exact opposite outcome.

With regard to the next level of Bronfenbrenner's (1979) model, that which examines individuals' relationships with their parents and families, adolescents who report more positive perceptions of the emotional availability and warmth displayed by their mothers and fathers as well as their parents' overall collective emotional support report lower levels of externalizing behavior problems. This association is supported strongly in the literature (Conger et al., 1992; Deater-Deckard, 1996; McCarty et al., 2005; Pettit & Bates, 1989; Simons et al., 1989; Stormshak et al., 2000) and underscores the importance of the parent-adolescent relationship during this developmental period, despite adolescents' strides to increase their autonomy and

independence from their families. In other words, although adolescents are working to develop greater levels of autonomy, are further developing their identities, and are seeking out relationships and intimacy with peers outside of their immediate family, adolescents' characterizations of their mothers and fathers as being emotionally available, warm, and supportive are related closely to the acting out behaviors that they exhibit.

In conjunction with the next level of Bronfenbrenner's (1979) model, that which accounts for an individual's relationship with their surrounding community, adolescents' perceptions of their neighborhood support also are related to their externalizing behavior problems. In particular, as adolescents' perceptions of their neighborhoods become more positive (e.g., their neighborhoods exhibit increased stability, safety, and support), their ratings of their externalizing behavior problems decrease. This finding is consistent with previous literature (e.g., Sampson et al., 1997) and indicates that factors outside of adolescents' immediate home environment also play an important role in their display of externalizing behavior problems.

The findings of the present study suggest that specific relationships in the community may not be as important in understanding externalizing behavior problems, however. For example, adolescents' reports of the emotional support that they perceive from their teachers and their peers are unrelated to their ratings of their own externalizing behavior problems. Such findings are inconsistent with previous literature (Ingoldsby & Shaw, 2002; Leventhal & Brooks-Gunn, 2000; McLoyd, 1998). Given that the adolescents in this sample appear to have positive relationships with their mothers and fathers (i.e., they endorse relatively high rating of the emotional availability, warmth, and support provided by their mothers and fathers), they may not have a need to invest as much in their relationships with other individuals in the community. In

this case, adolescents' overall characterization of their neighborhoods may be more important. In contrast, in samples of adolescents who are more at risk as a result of family difficulties or poor relationships with their mothers and fathers, relationships with other individuals in the surrounding community may prove to be more important (e.g., Werner, 1989). Future research should examine these relationships more closely in the context of adolescents who are developing typically versus those who may be at risk for a variety of reasons.

Finally, with regard to the outermost circle of Bronfenbrenner's (1979) model, that which examines the role of cultural context, adolescents' acculturation status, commitment to ethnicity, and exploration of ethnicity are not related directly to their ratings of their externalizing behavior problems. A closer look of the correlations in this study reveals that these overarching cultural variables are related significantly to various variables at the different levels of Bronfenbrenner's (1979) model. For example, at the innermost level, acculturation status is related positively to adolescents' academic competence. Understandably, adolescents who report higher levels of acculturation are likely to be more comfortable with the academic process in the United States. Given that adolescents' perceived academic competence is related directly to their externalizing behavior problems, it may be that adolescents' acculturation status has a more indirect relationship to their externalizing behavior problems.

A second example relates to adolescents' commitment to their ethnic identity and their perceptions of their parents' characteristics (i.e., the next level in Bronfenbrenner's [1979] model). Adolescents who report feeling more highly committed to their ethnic identities also reported more positive perceptions of their mothers' and fathers' emotional availability and warmth. Thus, even though adolescents' commitment to their ethnic identity is not related

directly to their externalizing behavior problems, it may be that adolescents' ethnic identity is related indirectly to their externalizing behavior problems. Such findings suggest that adolescents' culture may be important for the manner in which it relates to those interactions that adolescents have with their parents and their neighborhoods.

One of the main goals of the present study is to examine the specific ways in which adolescents' perceptions of their parents' characteristics and their community characteristics predict their externalizing behavior problems while holding acculturation status and ethnic identity constant. Although adolescents' acculturation status and commitment to and exploration of their ethnic identity are not correlated significantly with their externalizing behavior problems, it cannot be denied that the experiences that adolescents have both at home and within the neighborhood occur within the greater context of culture and ethnicity. For example, Dinh and colleagues (2002) indicate that there is a positive relationship between acculturation and behavior problems in a culturally diverse group of youth and that this relationship is mediated by parental involvement. In the present study, this particular sample of adolescents generally identify equally with the majority ethnic group and with their minority ethnic group, when applicable. Therefore, for the sample in the present study (i.e., a generally upper-middle class sample of adolescents whose immigration status is unknown), acculturation status may not have such a direct relationship.

Nonetheless, in the regression analysis examining the moderational relationships between parents' characteristics and neighborhood characteristics for adolescents' externalizing behavior problems, both parents' characteristics and neighborhood characteristics are important predictors. With regard to parents' characteristics, maternal warmth and overall parental

emotional support are significant predictors in the regression equation. This finding is supported generally by previous research in which mothers' parenting characteristics are related to adolescents' externalizing behavior problems (Fanti, Henrich, Brookmeyer, & Kuperminc, 2008). Fanti and colleagues (2008) offer two possible explanations for this finding that are relevant to the present study. First, adolescents tend to feel closer to their mothers than to their fathers (Hosley & Montemayor, 1997), suggesting that adolescents' perceptions of their mothers' characteristics may have more salience than fathers' characteristics when adolescents' are rating their own behavior problems. Other studies also suggest that mothers tend to be more responsive and supportive of adolescents' behaviors and emotions (Lamb, 1997), again suggesting the salience of mothers' characteristics to adolescents. Second, research shows that adolescents typically spend more time with their mothers relative to their fathers (Repinski & Zook, 2005), which also may play a role in this finding in the present study.

The significant predictive value of overall parental emotional support also is consistent with previous literature (Conger et al., 1992; Deater-Deckard, 1996; Pettit & Bates, 1989; Simons et al., 1989; Stormshak et al., 2000). This variable is interesting in that it does not separately assess the emotional support provided by mothers versus fathers but, instead, suggests adolescents' perceptions of the parenting unit may be an important predictor of adolescents' externalizing behavior problems. Thus, although fathers' characteristics are not serving as individual predictors of adolescents' externalizing behavior problems, they may be making a contribution to adolescents' outcomes in conjunction with the role that they play through co-parenting with mothers. Given this hypothesis, the role of fathers should not be underplayed (e.g., Lamb, 1997; Phares, 1996). Results from this study suggest that mothers' and fathers'

characteristics may have unique pathways for shaping adolescents' outcomes and behavior problems. Future research should continue to closely examine the mechanisms through which mothers' and fathers' characteristics operate to protect against the development of adolescents' externalizing behavior problems.

The present study conceptualizes neighborhood characteristics on three levels (i.e., general community support from within a neighborhood context; support from significant adults, like teachers, within the community; and support from peers within the community). The regression analysis in the present study suggests that, of these three community support variables, only perceived support from within a neighborhood context is a significant predictor of externalizing behavior problems. This particular finding is consistent with previous literature (Ingoldsby & Shaw, 2002; Leventhal & Brooks-Gunn, 2000; McLoyd, 1998; Sampson et al., 1997). The strength of adolescents' perceptions of their mothers' warmth, their parents' overall support, and the general characteristics of their neighborhood together may overshadow the relationships that peer and teacher emotional support may have with their externalizing behavior problems. It also may be the case that these relationships do not play a direct role in predicting adolescents' externalizing behavior problems when adolescents appear to be relatively well-adjusted, as is the case in this sample.

Finally, the hypothesis that neighborhood support will moderate the relationship between parenting characteristics and adolescents' externalizing behavior problems is not supported by this study. This finding indicates that both parents' characteristics and neighborhood characteristics play unique roles in predicting adolescents' externalizing behavior problems.

Given the strong correlational relationships among the variables examined in this study, a second hierarchical regression analysis is examined to provide a better understanding of the predictors of adolescents' externalizing behavior problems in the context of Bronfenbrenner's (1979) ecological model. Results of this analysis are generally consistent with the relationships already discussed here but also suggest that the relationships among adolescents' culture, the characteristics of their neighborhood, the characteristics of their mothers and fathers, and their own individual characteristics can be used to significantly predict their externalizing behavior problems. Although not all variables that may be important to predicting adolescents' externalizing behavior problems are examined, findings from this study strongly support the notion that adolescent development is multisystemic, occurring on multiple levels or concentric circles of living. In other words, adolescents' closely held personal beliefs about themselves, their unique perceptions of their mothers' and fathers' characteristics, their perceptions of support within their community, and the greater context of culture and ethnicity all make an important contribution to predicting adolescents' externalizing behavior problems.

Even though this study takes great care to put the relationships among adolescents' self-perceptions, their perceptions of their parents, and their perceptions of their neighborhood in the context of an ecological model, a final thought on the development of externalizing behaviors deserves mention. That is, the occurrence of externalizing behaviors likely is related to the genetics and heritability of particular externalizing disorders (e.g., Oppositional Defiant Disorder). For example, there is strong evidence suggesting the astounding heritability of externalizing behavior (Dick et al., 2009). Furthermore, the way in which genetic factors interact with environment factors to increase or decrease the likelihood of these behaviors being

manifested for any particular individual is of continuing interest within the research community (Dick et al., 2009; McKinney & Renk, 2007). Given that adolescents' behaviors (as well as their perceptions of those behaviors) and their interactions with their parents (due to the behaviors that their parents also may have inherited) are likely driven at least in part by genetics, the heritability of externalizing behavior problems likely plays a role at each level of the ecological model described in the current study. Thus, further research examining how genetic factors interact with each level of the model presented within this study is warranted.

Nonetheless, the results of the present study should be viewed within the context of its limitations. First, the correlational nature of this study does not allow for causal inferences to be made. Therefore, it is difficult to know for certain the nature of the relationships that exist between the variables examined here. Future research should include a longitudinal design to better understand possible causal relationships among the variables examined in this study. Second, the use of only one measure of general neighborhood support may have affected the results of the analyses. Future research should incorporate multiple measures in order to better understand neighborhood support and its relationship to adolescents' externalizing behavior problems. Also, as stated earlier, the neighborhood support variable in this study reflects adolescents' perceptions of their neighborhood, and those perceptions may vary across participants. Therefore, it is difficult to fully understand what aspects of these adolescents' neighborhood or community are serving as predictors. Third, the characteristics of this particular sample may not be representative of the adolescent population in the United States as a whole. It also does not appear to be representative of adolescents who come from high risk neighborhoods

or dysfunctional family relationships. Therefore, the results may not be generalizable to adolescents from backgrounds that are more socioeconomically diverse.

Finally, the manner in which adolescents completed their questionnaires may have affected the results reported here. In particular, the length of the research packet and the ease with which some of the questionnaires were completed (e.g., the *Harter Self-Perception Profile for Children* is difficult for some to understand) may have been daunting for some of the adolescents in the sample. Further, the social desirability of the responses provided to the questionnaires used in this study may have been an issue, as adolescents in this sample completed their research packets in a classroom setting that put the adolescents in close proximity to each other. Similarly, the self-report nature of the research packet only allows for an examination of adolescents' perceptions, or perhaps of the perceptions that they were willing to share. Future research should examine the research questions posed in this study using multimodal methods of data collection (e.g., observations of parent-adolescent interactions).

Even in the context of these limitations and in the context of the extensive research literature on risk factors for externalizing behavior problems, this study provides a unique contribution to the research literature. The goal of the present study is to look at important predictors of adolescents' externalizing behavior problems (i.e., personal characteristics, parents' characteristics, neighborhood characteristics, and culture) within an ecological framework so as to better understand how these factors work together to protect adolescents from developing such behavior problems. Although moderational effects are not noted in this study, much is learned from the analyses conducted in this study that will contribute to the literature in a meaningful way. First, this study helps to understand each of these factors and their predictive nature from

the unique perspective of early adolescents. This developmental period marks a time when adolescents are beginning to become more aware of and gaining insight into the community environment outside of their immediate families (e.g., peers, community activities). Second, this study is able to capitalize on and provide an empirical examination of Bronfenbrenner's (1979) ecological model. The variables studied were chosen and analyzed in a way that is consistent with this model. Thus, the results of this study offer a viewpoint of how adolescents' externalizing behavior problems are related to the many related systems described in Bronfenbrenner's (1979) model.

Overall, the findings of this study strongly support the need for comprehensive treatments targeting multiple components or risk factors when working with adolescents who exhibit externalizing behavior problems. One such treatment developed by Borduin and Henggeler (1990), *Multisystem Therapy*, operates under two principles that nicely parallel the results of this study. The first principle is consistent with Bronfenbrenner's (1979) ecological model and states that, "the child is embedded within multiple systems that exert direct and indirect influences on behavior" (Henggeler, Rodick, Borduin, Hanson, Watson, & Urey, 1986, p.132). The second principle is that behavior has reciprocal and bidirectional qualities. For example, children and adolescents with behavior problems often experience a transactional exchange of negative behaviors from their parents and other individuals in their lives. In other words, the negative behaviors exhibited by adolescents will have an effect on their parents (or others with whom they interact), and the subsequent negative behaviors exhibited by their parents (or others with whom they interact) will affect the adolescents (e.g., Patterson, 1982). Given these principles, Borduin and Henggeler (1990) suggest that, although interventions typically focus on individual children

or adolescents and/or their families, systems or levels outside of the family may actually be in greater need of intervention for some children and adolescents. This idea is supported by the findings of the present study.

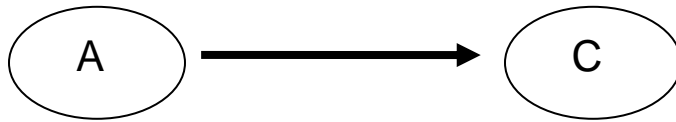
The results of this study highlight the notion that adolescents' experiences do not occur within a bubble. Each system in which adolescents operate appears to make a unique and important contribution to predicting the degree of externalizing behavior problems that they may report experiencing. As a result, the implementation of multisystemic interventions in which both adolescents and their families, as well as the systems outside of their families (e.g., neighborhoods), are included as mechanisms of change are supported (Henggeler, 1999). It is only by considering individual adolescents in the context of the larger systems in which they operate, ranging from their families, their neighborhoods, and the greater culture, that researchers and mental health professionals can aim to have the greatest possible impact on improving their lives and help them become fully functioning and happy adults.

APPENDIX: FIGURES AND TABLES

For this moderational model to be valid, the following criteria must be met:

In Block 1, acculturation status will be entered as a control variable. In Block 2, perceived parental emotional warmth (A) must be significant predictors of self-reported externalizing behaviors (C). In Block 3, perceived neighborhood support (B) must be a significant predictor of self-reported externalizing behaviors (C). In Block 4, the interactions between parental characteristics (e.g. warmth and support) and perceived neighborhood support must be significant; that is, according to Baron and Kenny (1986), the moderating variable affects this relationship such that the impact or the nature of the predictor on the criterion variable varies according to the strength of the moderating variable.

Block 2.



Block 3.



Block 4.

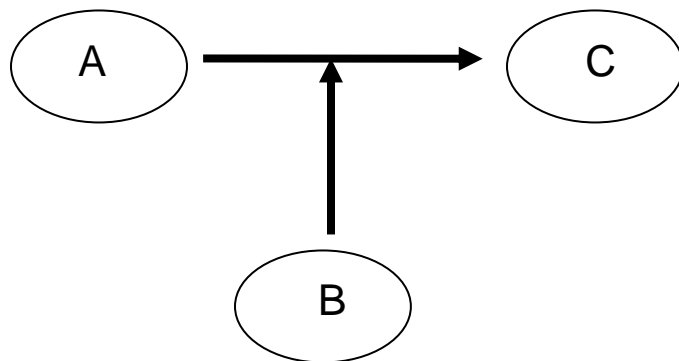


Figure 1. *Primary Moderational Relationship*

Table 1. Means and Standard Deviations Overall and by Adolescent Sex

| Variable | Total Sample | | Males | | Females | | <i>t</i> |
|--------------------------|--------------|-----------|----------|-----------|----------|-----------|----------|
| | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | <i>M</i> | <i>SD</i> | |
| Age | 12.06 | 0.954 | 12.16 | 1.02 | 11.94 | 0.872 | 1.63 |
| Grade Level | 6.83 | 0.924 | 6.88 | 0.882 | 6.76 | 0.964 | 0.95 |
| Acculturation | 31.33 | 9.02 | 31.43 | 9.19 | 31.56 | 8.7 | -0.09 |
| Ethnicity Explore | 9.72 | 3.15 | 9.46 | 3.06 | 9.89 | 3.22 | -0.09 |
| Ethnicity Commit | 10.5 | 3.19 | 10.54 | 3.18 | 10.38 | 3.21 | -0.96 |
| Externalizing Behavior | 49.62 | 10.08 | 49.45 | 9.84 | 49.8 | 10.37 | 0.35 |
| Maternal Warmth | 68.56 | 8.61 | 68.52 | 8.3 | 68.45 | 9.13 | 0.06 |
| Paternal Warmth | 63.89 | 12.58 | 64.35 | 10.71 | 63.35 | 14.56 | 0.54 |
| Maternal Emotional Avail | 79.73 | 15.15 | 81.02 | 12.63 | 78.32 | 17.45 | 1.23 |
| Paternal Emotional Avail | 73.01 | 21.17 | 75.36 | 18.9 | 70.18 | 29.3 | 1.66 |
| Parental Emotional Supp | 20.89 | 4.12 | 21.23 | 3.66 | 20.49 | 4.53 | 1.23 |
| Academic Competence | 19.24 | 3.86 | 19.49 | 3.67 | 19.05 | 4.02 | 0.78 |
| Social Acceptance | 18.53 | 3.98 | 18.43 | 3.91 | 18.76 | 4.03 | -0.56 |
| Global Self-Worth | 20.04 | 3.41 | 20.14 | 3.23 | 20.06 | 3.6 | 0.16 |
| Community Support | 19.22 | 1.76 | 19.32 | 1.85 | 19.15 | 1.62 | 0.66 |
| Teacher Support | 15.31 | 4.36 | 15.25 | 4.61 | 15.37 | 4.01 | -0.19 |
| Peer Support | 29.71 | 8.53 | 26.98 | 8.52 | 32.45 | 7.4 | -4.44*** |

Note. The *t* tests listed here compare the scores of male and female participants. *** $p < .001$

Table 2. *Correlations Among Variables*

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 |
|-------------------------------|---|--------|--------|--------|--------|--------|------|--------|--------|--------|-------|--------|--------|--------|-------|
| 1. Externalizing Behaviors | 1 | -.37** | -.26** | -.31** | -.28** | -.41** | -.09 | -.09 | -.05 | -.30** | -.07 | -.49** | -.29** | -.09 | -.03 |
| 2. Maternal Warmth | | 1 | .32** | .82** | .32** | .52** | .08 | .19** | .12 | .36** | .18* | .29** | .29** | .18* | .10 |
| 3. Paternal Warmth | | | 1 | .28** | .92** | .24** | -.01 | .15* | .20** | .12 | .09 | .25** | .16* | .20* | .13 |
| 4. Maternal Emotional Avail | | | | 1 | .43** | .60** | .06 | .17* | .12 | .27** | .18* | .36** | .29** | .24** | .18* |
| 5. Paternal Emotional Avail | | | | | 1 | .32** | -.04 | .21** | .24** | .09 | .12 | .32** | .19* | .28** | .13 |
| 6. Parental Emotional Support | | | | | | 1 | -.02 | .14 | .07 | .24** | .14 | .35** | .16* | .30** | .09 |
| 7. Acculturation Status | | | | | | | 1 | -.23** | -.23** | .19* | .12 | .12 | .15 | -.22** | -.08 |
| 8. Commitment to Ethnicity | | | | | | | | 1 | .74** | .08 | .10 | .07 | .13 | .15 | .09 |
| 9. Exploration of Ethnicity | | | | | | | | | 1 | .02 | .12 | .08 | .12 | .21** | .16* |
| 10. Academic Competence | | | | | | | | | | 1 | .47** | .55** | .20* | .09 | .16* |
| 11. Social Acceptance | | | | | | | | | | | 1 | .47** | .21** | .21** | .32** |
| 12. Global Self-Worth | | | | | | | | | | | | 1 | .26** | .15 | .22** |
| 13. Neighborhood Support | | | | | | | | | | | | | 1 | -.02 | -.02 |
| 14. Teacher Emotional Support | | | | | | | | | | | | | | 1 | .28** |
| 15. Peer Emotional Support | | | | | | | | | | | | | | | 1 |

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

Table 3. *Regression Analysis: Moderation*

| Variables | <i>B</i> | <i>SE B</i> | β | Δr^2 |
|---|----------|-------------|---------|--------------|
| <i>Externalizing Behavior</i> | | | | |
| Block 1. $F(3, 117) = .08, p < .50, r^2 = .02$ | | | | .02 |
| Acculturation Status | -.13 | .11 | -.11 | |
| Ethnicity Exploration | .07 | .44 | .02 | |
| Ethnicity Commitment | -.42 | .44 | -.13 | |
| Block 2. $F(8, 117) = 4.42, p < .001, r^2 = .02$ | | | | .22 |
| Acculturation Status | -.12 | .10 | -.09 | |
| Ethnicity Exploration | .04 | .40 | .01 | |
| Ethnicity Commitment | -.01 | .41 | .00 | |
| Parental Emotional Support | -.80 | .26 | -.32** | |
| Maternal Warmth | -.50 | .22 | -.43* | |
| Paternal Warmth | .18 | .22 | .23 | |
| Maternal Emotional Availability | .23 | .14 | .34 | |
| Paternal Emotional Availability | -.19 | .14 | -.40 | |
| Block 3. $F(11, 117) = 3.70, p < .001, r^2 = .28$ | | | | .03 |
| Acculturation Status | -.06 | .10 | -.06 | |
| Ethnicity Exploration | .07 | .41 | .02 | |
| Ethnicity Commitment | .03 | .40 | .01 | |
| Parental Emotional Support | -.83 | .26 | -.34** | |
| Maternal Warmth | -.48 | .22 | -.41* | |
| Paternal Warmth | .20 | .23 | .25 | |
| Maternal Emotional Availability | .25 | .14 | .38 | |
| Paternal Emotional Availability | -.19 | .14 | -.41 | |
| Neighborhood Support | -1.06 | .51 | -.19* | |
| Teacher Emotional Support | .11 | .22 | .05 | |
| Peer Emotional Support | -.04 | .12 | -.03 | |
| Block 4. $F(13, 117) = 3.21, p < .001, r^2 = .29$ | | | | .01 |
| Acculturation Status | -.08 | .10 | -.07 | |
| Ethnicity Exploration | .04 | .41 | .01 | |
| Ethnicity Commitment | .09 | .41 | .03 | |
| Parental Emotional Support | -.80 | .26 | -.33** | |
| Maternal Warmth | -.46 | .23 | -.39 | |
| Paternal Warmth | .20 | .23 | .25 | |
| Maternal Emotional Availability | .25 | .14 | .38 | |
| Paternal Emotional Availability | -.21 | .14 | -.43 | |
| Neighborhood Support | -1.13 | .52 | -.20* | |
| Teacher Emotional Support | .12 | .22 | .05 | |
| Peer Emotional Support | -.05 | .12 | -.04 | |
| Paternal x Community | .31 | .48 | .07 | |
| Maternal x Community | -.52 | .50 | -.11 | |

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

Table 4: *Hierarchical Regression Analysis: A Bigger Picture*

| Variables | <i>B</i> | SE <i>B</i> | β | Δr^2 |
|---|----------|-------------|---------|--------------|
| <i>Externalizing Behavior</i> | | | | |
| Block 1. $F(3, 144) = .99, p < .40, r^2 = .02$ | | | | .02 |
| Acculturation Status | -.13 | .10 | -.11 | |
| Ethnicity Exploration | .07 | .40 | .02 | |
| Ethnicity Commitment | -.42 | .40 | -.13 | |
| Block 2. $F(6, 117) = 2.67, p < .02, r^2 = .10$ | | | | .08 |
| Acculturation Status | -.09 | .10 | -.08 | |
| Ethnicity Exploration | .21 | .39 | .07 | |
| Ethnicity Commitment | -.33 | .38 | -.12 | |
| Neighborhood Support | -1.60 | .48 | -.28** | |
| Teacher Emotional Support | -.24 | .20 | -.10 | |
| Peer Emotional Support | -.02 | .10 | -.02 | |
| Block 3. $F(11, 144) = 4.64, p < .001, r^2 = .28$ | | | | .17 |
| Acculturation Status | -.06 | .10 | -.06 | |
| Ethnicity Exploration | .07 | .36 | .02 | |
| Ethnicity Commitment | .03 | .36 | .01 | |
| Neighborhood Support | -1.06 | .46 | -.19* | |
| Teacher Emotional Support | .11 | .20 | -.05 | |
| Peer Emotional Support | -.04 | .09 | -.03 | |
| Parental Emotional Support | -.83 | .23 | -.34*** | |
| Maternal Warmth | -.48 | .19 | -.41* | |
| Paternal Warmth | .20 | .20 | .25 | |
| Maternal Emotional Availability | .25 | .13 | .38* | |
| Paternal Emotional Availability | -.19 | .13 | -.41 | |
| Block 4. $F(14, 144) = 6.46, p < .001, r^2 = .41$ | | | | .13 |
| Acculturation Status | -.05 | .08 | -.05 | |
| Ethnicity Exploration | .08 | .33 | .03 | |
| Ethnicity Commitment | -.06 | .33 | -.02 | |
| Neighborhood Support | -.87 | .42 | -.15* | |
| Teacher Emotional Support | .02 | .18 | .01 | |
| Peer Emotional Support | -.02 | .09 | -.02 | |
| Parental Emotional Support | -.61 | .22 | -.25** | |
| Maternal Warmth | -.47 | .18 | -.40* | |
| Paternal Warmth | .15 | .19 | -.18 | |
| Maternal Emotional Availability | .26 | .12 | .39* | |
| Paternal Emotional Availability | -.13 | .12 | -.27 | |
| Academic Competence | -.09 | .24 | -.04 | |
| Social Acceptance | .62 | .21 | .25** | |
| Global Self-Worth | -1.28 | .28 | -.43*** | |

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

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