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Mei Chao

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SOCIAL CONNECTIONS, PERCEIVED SUPPORT, AND CHILDREN'S ADJUSTMENT FOLLOWING EXPOSURE TO DOMESTIC VIOLENCE

By

Mei Chao

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ABSTRACT

SOCIAL CONNECTIONS, PERCEIVED SUPPORT, AND CHILDREN'S ADJUSTMENT FOLLOWING EXPOSURE TO DOMESTIC VIOLENCE

By

Mei Chao

Although exposure to domestic violence has been linked to a range of adjustment problems for children, there has been little research on factors that may shield children from these effects. Because natural support systems play such an important role in assisting individuals in crisis and in stressful events, it is necessary to examine the role social support networks play in the lives of children exposed to domestic violence. This study investigated the influence of social connection and perceived support on children's depression, emotional adjustment problems, behavioral adjustment problems, and perceived self-competence. Participants in this study were 158 children (aged 4-13) who had witnessed domestic violence within four months prior to their interviews. Results indicated that the number of social connections children had in their surroundings significantly related to their levels of depression. On the other hand, perceived support was significantly related to children's self-competence. In particular, emotional support was positively related to children's emotional adjustment problems; whereas high network enjoyment was associated with fewer behavioral adjustment problems. Furthermore, network enjoyment moderated the relationship between social connection and children's depression. Implications of this study's findings for interventions, community-based service delivery, service providers, and policy makers were discussed.

To my mother who cultivated in me the love of ideas and learning

and

To the children who shared their experiences of adversity and resilience

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INTRODUCTION

Only recently has much attention been given to the experiences of children exposed to domestic violence. A recent estimate indicates that as many as 10 million children are exposed to domestic violence each year (Straus, 1992). It is now widely recognized that witnessing domestic violence is extremely upsetting and stressful for children (Hughes & Luke, 1998). Such children are believed to be at risk for developing a range of emotional and behavioral adjustment problems (for reviews, see Campbell, 1998; Kolbo, Blakely, & Engleman, 1996; Peled & Davis, 1995; Jaffe, Sudermann, & Reitzel, 1992). A number of investigators in this area have reported that children who have been exposed to domestic violence display more aggressiveness and conduct behavior problems than children who have not witnessed domestic violence (Fantuzzo, DePaola, Lambert, Martino, Anderson, & Sutton, 1991; Hughes, 1988; Hughes, Parkinson, & Vargo, 1989). Child witnesses have also been found to be at risk for lower social competence than their peers. In addition, children who have witnessed domestic violence are more likely to experience posttraumatic stress, anxiety, depression, and somatic symptoms than comparison children (Hughes, 1988; Maker, Kemmelmeier, & Peterson, 1998; Sternberg, Lamb, Greenbaum, Cicchetti, Dawud, Cortes, Krispin, & Lorey, 1993).

However, some children are more profoundly affected by this exposure than others (Sullivan, Juris, Bybee, Nguyen, & Allen, 2000; Edleson, 1999). Overall, while some children demonstrate poor adjustment, others retain their well-being in spite of exposure to domestic violence. In fact, some studies have found no differences in

witnesses' behavioral and emotional adjustment when compared to other children. This variability in children's adjustment may be explained, in part, by various personal and situational factors, including whether the child has personally experienced abuse and the severity to which he or she has been exposed to domestic violence.

At this point, relatively little is known about factors which shield children from the negative effects of witnessing domestic violence. In order to intervene successfully on behalf of witnesses, it is particularly important to gain a better understanding of the link between risk and protective factors that contribute to children's positive adjustment. Investigators focusing on children dealing with various adverse circumstances have long stressed the importance of understanding the effects of negative life events on children and the reasons those experiences elicit such divergent responses in different individuals (Rak & Patterson, 1996; Garmezy, Masten, & Tellegen, 1984; Rutter, 1986; Meyer, 1957). Furthermore, Rutter has stated that "it is important ... [to] determine why it is so and what it is that protects them from hazards they face" (Rutter, 1979, p. 70).

Previous research involving children dealing with various forms of adversity has consistently shown that social support networks influence the behavioral and emotional adjustment of children. This work has shown that the availability and quality of social support are positively associated with children's ability to cope and adjust with various adverse circumstances, including parental mental illness, poverty, neglect, poor parenting, and family conflict (Masten, Best, & Garmezy, 1990; Rutter, 1987). For example, Wertlieb, Weigel, & Feldstein (1987) found elevated levels of stress were significantly correlated with greater adjustment problems among school-aged children (N=159). More specifically, Wertlieb et. al. (1987) found that undesirable life events,

compared to desirable events, were more strongly related to adjustment problems. However, these investigators found that social support mitigated these negative effects.

Unfortunately, few investigators have examined the role of social support networks on children's adjustment following exposure to domestic violence. In particular, although investigators have stressed the importance of social support networks for children, little is known about how these children's connections with others and perceived support from this network affect their well-being and adjustment (Beeman, 2001; Rhodes, 1994; Wilson, Cameron, Jaffe, & Wolfe, 1989). Berrera (1986) maintained that social embeddedness, or being socially connected, is a critical component in the psychological sense of community and, in turn, affects well-being and the ability to cope with adversity. Thus, it is imperative to identify such factors that may shield children from the potentially debilitating impact of domestic violence.

Prevalence of Childhood's Exposure to Domestic Violence

Almost two decades ago, Carlson (1984) estimated that at least 3.3 million children witness their mothers being physically and emotionally abused each year in the United States alone. Her estimate was based on earlier studies that indicated about 3 million American families experience at least one episode of serious violence annually (Straus, Gelles, & Steinmetz, 1980). Carlson explained that she had probably underestimated the actual number of children exposed because her estimate only included exposure to violence that would likely result in injury. This number was also likely to be very low because the study on which her estimates was drawn excluded families with children under the age of 3. It also excluded families in which parents were separated or divorced in which abuse was probably still occurring.

More recent studies have estimated a higher prevalence of children exposed to domestic violence. For example, Straus (1992) has recently estimated that as many as 10 million children may be exposed annually. His estimate was drawn from a survey (Straus & Gelles, 1990) in which adults were asked to reflect on "whether, during their teenage years, their father had hit their mother and how often" (p. 98). A similar question was asked regarding their mother. Straus indicated that one in eight of the respondents (12.6%) recalled such an occurrence, with an average of 8.9 and a median of four violent episodes. Approximately 50 percent of the respondents recalled their father hitting their mother. In another study with adults, Silvern, Karyl, Waelde, Hodges, Starek, Heidt, and Min (1995) found that 118 (41.1%) of the 287 female--and 85 (32.3%) of the 263 male--undergraduate college students in their study had been exposed to domestic violence.

These findings are consistent with Fantuzzo, Boruch, Abdullahi, Atkins, and Marcus' (1997) study on the prevalence of children's exposure to domestic violence in five U.S. cities (Atlanta, Charlotte, Miami, Milwaukee, and Omaha). Using secondary analysis of police arrests in these cities, they found that children were directly involved in episodes of domestic violence from 9% to 27% of the time. Furthermore, children younger than five years old were overly-represented in homes where domestic violence occurred.

While estimates differ as to the number of children exposed to domestic violence each year, it is evident that a large proportion of children encounter it annually (Edleson, 1999). Furthermore, many children are exposed to repeat episodes of violence against their mothers (Straus, 1992; Margolin, 1998).

Defining a Witness

Edleson (1999) described children's witnessing of domestic violence as "directly viewing the violence, hearing it, being used as a tool of the perpetrator, and experiencing the aftermath of violence" (p. 844). As a result, they may also be directly involved (e.g., the assailant may take the child hostage to force the mother's return to the home). But typically, children are more likely to hear the violent episode and experience its aftereffects (e.g., a mother who is injured and in need of help). Thus, it is crucial to include these various ways in which children are exposed in a definition of children's witnessing of domestic violence (Edleson, 1999).

Impact of Domestic Violence on Children

Much of the literature to date focuses largely on establishing the relationship between childhood exposure to domestic violence and a range of adjustment problems. The impact of domestic violence is believed to persist over time, affecting various aspects of children's lives. The findings tend to indicate that, relative to non-witnesses, 30-40% of all witnesses experience post-traumatic stress (Burman & Ellen-Meares, 1994; Graham-Bermann & Levendosky, 1998; Devoe & Graham-Bermann, 1997; Malmquist, 1986) and suffer greater social, cognitive, emotional, and behavioral problems (for reviews, see Kolbo, Blakely, & Engleman, 1996; Peled & Davis, 1995; Jaffe, Sudermann, & Reitzel, 1992). Although it appears that domestic violence has far-reaching effects, this study will focus more specifically on the behavioral and emotional adjustment of children who have been exposed to domestic violence. Hence, reviews of specific studies will be limited to these areas.

Before proceeding with a review of specific studies, it is important to note some methodological problems with current studies, so that their findings will be interpreted

with caution. A major shortcoming in this research area is that many investigators did not determine whether children in their studies were themselves abused, in addition to witnessing domestic violence. Estimates of the degree of overlap between domestic violence and child abuse could be anywhere from 40% (Straus, Gelles, & Steinmetz, 1980) to 70% (Appel, Angelelli, & Holden, 1997; Straus & Gelles, 1990; Bowker, Arbitell, & McFerron, 1988). This factor presents a significant confound because child abuse is itself a major setback to children's adjustment (Cicchetti & Carlson, 1989). Thus, the negative adjustment reported by some children may be compounded by additional experiences of abuse.

A second shortcoming involves the period in which children and their mothers were assessed. Most research findings have been based largely on interviews with children and their mothers while they were in crisis or living in shelters. If children accompanied their mothers to a domestic violence shelter, it was likely that they had recently witnessed a violent incident. Therefore, they were often experiencing additional stressors and disruptions of routine, schooling, and social networks. Jaffe, Sudermann, and Reitzel (1992) explained that it is important to account for "social disruptions in the children's lives, including home and school moves, changes in friends and extended family relationships, and economic disadvantage" (p. 322). Therefore, "in this state of desperation and need," children's adjustment during this period would not be representative of their behavioral and emotional well-being in the long run (Campbell, Sullivan, and Davidson, 1995, p. 238). Hence, making generalizations about the adjustment of children based on a sample living in shelters and in immediate crisis would be invalid.

Lastly, another shortcoming in this research has to do with the sources from which information is derived. Most studies have relied solely on mothers' reports of their children's adjustment. However, notable discrepancies are likely to occur between child and parent ratings of adjustment problems (Edleson, 1999; Perrin, Ayoub, & Willett, 1993). For example, several studies showed that witnesses of domestic violence and their parents differed widely on the adjustment problems they reported (Hughes et al., 1989; Sternberg, Lamb, & Dawud-Noursi, 1998). In terms of emotional states, it is often difficult for mothers accurately to report their children's thoughts and feelings (e.g., sadness, depression). Similarly, mothers' reports of their children's behavioral adjustment are confined to the time they spend observing their children and may reflect an interaction between the child and the mother rather than on the child's overall adjustment. Also, as Sternberg and his associates (1993) indicated, women who are experiencing domestic violence may not judge their children's behaviors with clarity due to their own feelings of guilt, depression, or frustration. For these reasons, it is important to gather data from multiple sources (e.g., mother and child) concerning children's adjustment.

Emotional and behavioral adjustment. At this point, a great deal of research has focused on the emotional and behavioral dimensions of adjustment. Emotional problems tend to be characterized as internalized symptoms such as sadness, withdrawal, somatic complaints, fear, and anxiety. Alternatively, behavioral problems tend to be seen in terms of externalized symptoms such as aggression, cruelty to animals, disobedience, destructiveness, and delinquency (Jaffe, Wolfe, & Wilson, 1990).

Some studies that focused on internalized or emotional problems have reported that witnesses develop higher levels of anxiety and depression but lower levels of self-esteem (e.g., Jaffe, Wolfe, Wilson, Zak, 1986b; Christopoulos, Cohn, Shaw, Joyce, Sullivan-Hanson, Kraft, & Emery, 1987; Fantuzzo, DePaola, Lambert, Martino, Anderson, & Sutton, 1991; Forsstrom-Cohen & Rosenbaum, 1985; Hershorn & Rosenbaum, 1985; Hughes, 1988; Hughes et al., 1989; Jouriles, Murphy, & O'Leary, 1989). For instance, Jaffe and his associates (1986) found that school-age boys in their study (ages 4 to 16, N=32) received scores significantly higher on the internalizing subscale of the Child Behavior Checklist (e.g., complaining of loneliness, sadness, worrying) than the comparison group. Although there were also other findings, of the three groups of boys studied (witnesses, non-witnesses, and abused), witnesses displayed patterns of emotional adjustment that were remarkably similar to those who had been physically abused by their parents.

A number of studies that assessed the behavioral, or externalized, dimension of adjustment indicated that these children were more likely to evidence delinquency and aggression than the comparison group (e.g., Holden & Ritchie, 1991; Hughes, 1988; Hughes, Parkinson, & Vargo, 1989). For instance, Holden & Ritchie (1991), employing the widely used Child Behavior Checklist, assessed the type and extent of behavior problems exhibited by a sample of children ranging in age from 2 to 8 years old. Of these children, those raised in domestic violence environments were more likely to show difficult temperaments and aggressiveness than the children raised in nonviolent environments. However, in another study, which differentiated between abused and non-

abused witnesses, differences in externalized behavior were significant only if the witnesses were also abused (Hughes, 1988).

Social competence. Although the number of studies is limited, researchers have recently also assessed and studied levels of social competence as an important indicator of children's adjustment and development (e.g., Mathias, Mertin, & Murray, 1995; Jaffe et al., 1990). This idea of social competence is derived from Bandura's social cognitive theory (1986), which maintains that children's behavior is shaped by their sense of "self-efficacy." According to this theory, violence against their mothers could influence the ways in which children view and compare themselves to other children. Being exposed to and affected by domestic violence at home may lead these children to view themselves as having inferior social competency than other children. As a result, they would behave according to their views of themselves.

Several studies have reported that children exposed to domestic violence are more likely to have lower social competence than children who have not been exposed (e.g., Jaffe, Wolfe, et al., 1986b; Jaffe, Wilson et al., 1986; Wolfe, Zak, Wilson, & Jaffe, 1986; Kolbo, 1996; Spaccarelli, Sandler, & Rosa, 1994). Using the Achenbach Child Behavior Checklist, recent witnesses residing in a domestic violence shelter received lower scores on social competence, compared to non-witnesses or than those who were exposed to domestic violence in the past. Wolfe and his associates (1986) noted that, although witnesses in their study reported lower social competence than non-witnesses, this pattern of adjustment may not characterize the majority of them. This is, in part, because several extremely high scores in the study may have biased the results. In

addition, the investigators admitted that their findings were inconclusive given that the study was based on a small sample size (N=23) (Wolfe, Zak, et al., 1986).

In a recent study of children's witnessing of domestic violence, Mathias, Mertin, and Murray (1995) assessed behavioral and emotional adjustment problems among 79 children (ages 6 to 12) who accompanied their mothers to 10 South Australian domestic violence shelters. These investigators found that children's witnessing of domestic violence did not significantly influence their adjustment. However, being directly involved in these violent events was correlated with greater adjustment problems. Similar to previous findings, this study reported that children who witnessed domestic violence expressed lower social competence and more emotional problems than the comparison group. However, unlike previous research, this study failed to find any differences in the number of children developing behavioral problems. Overall, Mathias et al. (1995) found that a small proportion of children who resided in domestic violence shelters with their mothers displayed negative adjustment and even fewer of these children had low levels of social competence.

Variability in Children's Adjustment

Mathias et al. (1995) concur with other investigators' findings that the alleged link between domestic violence and children's adjustment problems has been inconsistent. Sullivan, Bybee, & Allen (2001), in an extensive review of the literature on domestic violence, noted that although some studies have found significant differences in emotional and/or behavioral problems between witnesses and non-witnesses, the differences were "modest and sometimes equivocal" (p. 4). For instance, 27% of witnesses residing in shelters at the time of the study experienced negative adjustment of

clinical proportions--whereas only 10% of the comparison group reported similar adjustment problems (Wolfe, Jaffe, Wilson, & Zak, 1985). As opposed to the 17% difference Wolfe et al. (1985) found, Christopoulos and his associates (1987) found only small differences between a sample of 40 witnesses (ages 5 to 13) and a community comparison group. Mothers rated their children (42 boys & 38 girls) more than one standard deviation above the mean of the comparison group on both internalizing and externalizing dimensions of adjustment on the Child Behavior Checklist. However, a comparison group of boys from similar socio-economic backgrounds also reported elevated scores on emotional or internalized problems. The children did not differ on either their perceived social competence or IQ. These investigators indicated that their common low socio-economic experience may be the most significant variable accounting for the children's elevated scores on the internalizing subscale. Similarly, Hershon & Rosenbaum (1985) indicated only small differences in adjustment between children raised in happy marriages and children raised in either discordant or violent marriages. Moreover, the researchers were not able to find significant differences between children from discordant and violent marriages.

Interestingly enough, other investigators have failed to uncover the expected relationships between childhood exposure to domestic violence and negative adjustment. These studies reported no group differences either in emotional problems (Hughes & Barad, 1983; Rosenbaum & O'Leary, 1981; Christopoulos et al., 1987; Hughes, 1988; Jouriles, Barling, & O'Leary, 1987; Wolfe, Zak, et al., 1986) or in behavioral problems (Hershon & Rosenbaum, 1985; Jouriles et al., 1987; Wolfe, Zak, et al., 1986). In fact, a large proportion of the children in these studies appeared relatively undamaged by such

exposure. For example, Jouriles and his associates (1989) found that approximately one half of the 87 witnesses in their study did not develop behavioral problems of clinical proportions on the Behavioral Problem Checklist (BPC). Consistent with these findings, Rosenbaum and O'Leary (1981) found that the majority of children from 53 domestic violence families had normal emotional and behavioral adjustment scores on the BPC. Even in those studies where damage was found, many of the children appeared to retain typical adjustment. For instance, Porter and O'Leary (1980), in their study of children living in shelters, reported adjustment differences only among boys, and only within the area of conduct disorders. In addition, Wolfe, Zak, Jaffe, and Wilson (1986), although indicating that children in shelters are more likely to have problems than non-witnesses, found that domestic violence accounted for only 10% of the variance in children's negative adjustment.

The degree to which domestic violence influences children's adjustment varies widely. Not every child who witnesses domestic violence demonstrates poor adjustment. While some do fare poorly in their adjustment, other children adjust remarkably well. For example, employing a cluster analysis with a sample of children residing in a shelter, Hughes and Luke (1998) recently discovered wide variability in children's adjustment. Based on both parent and child self-report measures, they found variation in distress levels and variability in adjustment among this group of youngsters on dimensions of behavioral problems, anxiety level, self-esteem, and depressive symptoms. Although the children fell into five clusters (Hanging in There, Doing Well, High Behavior Problem, High General Distress, and Depressed Kids), the majority of these children (60%) were in the undistressed or very mildly distressed groups (Hanging in There & Doing Well).

These results are supported by several other studies, indicating that 50-70% of witnesses do not exhibit negative adjustment (Jouriles et al., 1989; Milner & Gold, 1986; Wolfe et al., 1986). In particular, Jouriles, Murphy, and O'Leary (1989) noted that 50% of children (ages 5 and 12) of couples undergoing marital therapy "were not evidencing problems at clinical levels" (p. 455). Furthermore, their adjustment did not differ from that of community comparison children. This result remains constant even after accounting for general marital discord. These findings are "consistent with research on children in other high-risk populations in that many children appear relatively unaffected by negative factors in their home environments" (Jouriles et al., 1989, p. 455).

In fact, other research focusing on social competence has indicated that children exposed to domestic violence are just as socially competent as children who have not been exposed (Bookless-Pratz & Mertin, 1990; Fantuzzo et al., 1991; O'Keefe, 1994b; Christopoulous et al., 1987). Rosenberg (1984), for instance, reported that witnesses' social competence in his study were comparable to levels of other children in general. Other studies have found no differences in social competence between witnesses and non-witnesses (e.g., Hughes & Hampton, 1984; Kraft, Sullivan-Hanson, Christopoulos, Cohn, & Emery, 1984; Woods, 1981).

Given such variability in children's adjustment, it is important to understand the link between risk and protective factors that may contribute to children's positive adjustment. This is because the relationship between violence and its impact on children is multifaceted (Peled & Davis, 1995). As Peled and Davis (1995) indicated, many personal and situational variables (e.g., child abuse, severity of exposure, social support networks) are likely to moderate the degree of impact on children. Although a small

proportion of witnesses (30-40%) appeared to experience negative adjustment, it was also true that a significant number (50-70%) displayed remarkable adjustment. Therefore, investigators are now beginning to underscore the critical need to examine the role of protective factors that mitigate these negative effects (e.g., Sullivan et al., 2000; Hughes & Luke, 1998; Campbell, 1998). Although Hughes and Luke (1998) were able to document a wide range of variability in adjustment, they were only able to provide "some speculative thoughts" on the "differences in adjustment among the children" (p.206). They stressed, "It is now time ... to investigate in closer detail many of the factors that are related to adjustment" (p. 185) in witnesses of domestic violence.

Factors Moderating the Impact of Domestic Violence on Children

Some studies have suggested that the degree to which domestic violence affects the emotional and behavioral adjustment of children is moderated by a number of factors. While both personal and situational factors are likely to mitigate the impact of domestic violence on children, much of the work to date has primarily focused on characteristics of the child, such as age and gender. Other factors include whether the child has personally experienced abuse and the severity to which he or she has been exposed.

Abuse. The degree of overlap between domestic violence and child abuse could be anywhere from 30% to 70% (Appel, Angelelli, & Holden, 1997; Straus & Gelles, 1990; Bowker, Arbitell, & McFerron, 1988). This factor presents a significant confound because child abuse is detrimental to positive adjustment (Cicchetti & Carlson, 1989). A small number of studies that accounted for child abuse indicated that there are critical differences between groups of abused and non-abused witnesses. Not surprisingly, those children who also experienced physical or sexual abuse had higher distress levels than

children who only witnessed the violence but were not abused. They also were more distressed than those who had not been exposed to domestic violence (Davis & Carlson, 1987; Fantuzzo et al., 1991; Hughes, 1988; Hughes et al., 1989; Jaffe, Wolfe, et al., 1986b; Jouriles et al., 1989; Pfouts, Schopler & Hanley, 1981). O'Keefe (1995) corroborated these findings, indicating that the impact is most pronounced for externalizing behavior problems. Thus, child abuse compounds the adverse impact of witnessing violence on the children.

Severity of exposure. Domestic violence varies in its impact on children depending on the severity to which they are exposed. In the few studies that accounted for types of exposure, investigators found that children who witnessed both verbal and physical violence against their mothers suffered greater adjustment problems than children who witnessed only verbal abuse. Previous research has also found that the more prolonged the exposure to domestic violence, the greater the range of adjustment problems (Peled & Davis, 1995).

Attributes of the child. Some studies have found that school-aged boys and girls differ in their responses to domestic violence. For example, boys and girls in shelters have been shown to differ in the ways they manifest and cope with stress (Christopoulo et al., 1987; Jaffe, Wilson, et al., 1986; Rosenberg, 1984). In other studies, preschool girls showed less empathy (Hinchey & Gavelek, 1982) or more anxiety (Hughes & Barad, 1983) than boys. While boys generally displayed more externalizing problem behavior, such as hostility and aggression, girls manifested more internalized behavior problems, such as depression and somatic symptoms (Stagg, Wills, & Howell, 1989). Thus, gender is likely to be another important factor that moderates the adjustment of children who

witness domestic violence (Hughes et al., 1989). Moreover, these gender differences seem to be connected to the age of the child.

For instance, among school-age children, some studies have suggested that girls experience more overall behavioral problems, aggression (Christopherpoulos et al., 1987; Davis & Carlson, 1987), and internalizing problems (Holden & Ritchie, 1991) than boys. However, other studies found that school-age boys generally evidenced more behavioral problems than girls, particularly with aggressiveness (Jaffe et al., 1986b; Jouriles et al., 1989; Westra & Martin, 1981; Wolfe et al., 1985).

Some studies have reported that school-age children have more behavioral problems than preschool children (Davis & Carlson, 1987; Holden & Ritchie, 1991; Hughes et al., 1989). However, Hughes (1988) found that preschool children in shelters were more likely to have more behavioral problems than school-age children. Preschool children also reported more distress than older children (Hughes & Barad, 1983; Hughes, 1988a). In addition, the preschool-age children who had also been abused were functioning less well than any of the other groups (Hughes, 1988). However, this finding was not replicated in a later study in which abused children of younger and older school-ages received higher behavior problem scores than preschool children (Hughes et al., 1989).

Social Support as a Moderator of Children's Adjustment

Domestic violence has been linked with the behavioral and emotional adjustment of children. However, very little is known about factors or circumstances that mitigate these effects. In order to intervene successfully on behalf of witnesses, moving beyond assessing risk factors is needed in order to consider protective factors that contribute to

positive adjustment and well-being. Currently, increased attention has been given to the situational factors that are characteristic of resilient children. In particular, investigators have stressed the role of social support networks available to children and how these relationships impact their adjustment (Garbarino, Dubrow, Kostelny, & Pardo, 1992; Beeman, 2001).

Until recently, few studies have analyzed the role of social support networks on children's adjustment. The literature on adult populations has indicated that social support can enable them to cope with various stressful life events, including loss of a loved one, chronic illness, or major life transitions (e.g., Cobb, 1976; Cohen & Wills, 1985). Social support has also been considered to enhance general adjustment and well-being (Cauce, 1986; Flannery & Wieman, 1989). In addition, social support is thought to help individuals in multiple ways, by providing them with "emotional sustenance, informational guidance, or tangible assistance" (Hauser & Bowlds, 1990, p. 399).

Distinguishing Between Social Support and Social Networks

Investigators have emphasized the importance of distinguishing between social support and social networks, although the terms sometimes have been used interchangeably. Social networks consist of "the broad collection of social ties of an individual" (Beeman, 2001, p. 221). Similarly, social networks are "the cast of characters in an individual's social world" (Belle, 1989c, p.1). Not all social networks are necessarily supportive; they can also include negative or stressful ties (Crittenden, 1985; Wellman, 1981). Under some circumstances, social networks may impede adjustment (Stevens, 1988). Children's networks typically consist of their parents, grandparents, aunts or uncles, siblings, cousins, peers, teachers, counselors, and other adults.

On the other hand, social support represents the "supportive resources that are available through social networks" (Beeman, 2001, p. 221). Social support may come in the form of material and physical assistance, informational support, or emotional support. In studies linking social support to adjustment, however, social support is usually defined as the quality of emotional support available to individuals.

Berrera (1986) distinguished between social embeddedness and perceived support. Berrera described social embeddedness as the connections that individuals have to significant others in their surroundings. Therefore, social embeddedness is often referred to as social connections. In his view, "Being socially connected is a central element in one's psychological sense of community and constitutes the flip side of social isolation and alienation, terms that historically have figured prominently in psychological theories of psychological disorder" (Berrera, 1986, p. 415). One way to assess social connections is through the use of social network analysis. This kind of analysis consists of structured procedures for identifying people who have significant relationships with the children. The other way to assess social connections is to use broad indicators of the presence of social ties or networks. Berrera (1986) noted that a limitation of social connection measures is that they fail to elucidate the mechanism of social support's hypothesized influence on adjustment. As Wellman (1981) indicated, even though social network analysis identifies important social relationships, it would be incorrect to assume that all such connections provide support.

On the other hand, perceived support is "the appraisal of being reliably connected to others or the perception that one is loved, valued, and able to count on others if the need arises" (Beeman, 2001, p. 221). Some investigators have argued that it is this

perception of being supported that is the most critical aspect of social support (e.g., Cobb, 1976; Berrera, 1986). Measures of perceived social support tended to integrate perceived availability and adequacy of supportive networks. These measures differ from measures of social embeddedness in that they do not quantify the number of supporters or the amount of social contact. Rather, they try to capture individuals' confidence that adequate support would be available if it was needed or to characterize an environment as helpful or cohesive (Berrara, 1986).

Heller and Swindle (1983) similarly argued that the amount of support available in one's surrounding and the perception of support are separate constructs. They proposed that perceived support represents a cognitive appraisal of support availability. Thus, the positive effects of social support, in part, derive from one's judgment that support is available, in spite of the amount of support one may in fact receive from the surrounding environment. As Cauce (1986) commented, "a particularly good strategy for exploring the relationship between perceived support and the number and types of social connections that an individual actually has would require assessing those connections from more than one perspective" (pp. 609-610). Thus, perceived social support is distinctively different from actual social networks.

Realizing, however, that social support and social networks are related is useful in several ways. For instance, focusing on the social network, the larger collection of social ties, provides a point of reference from which to search for the resource of social support. Furthermore, realizing that social support and social networks are not the same cautions against assuming that increasing the number of people's networks, or encouraging people to rely on those they know, will necessarily help them (Beeman, 2001; Thompson, 1995).

This distinction between social embeddedness and perceived support has important implications for studying children's social support. In particular, it is possible to discern which aspects of social support play a more critical role in mitigating negative effects. At this point, it is not yet clear whether it is the number of supportive others or the overall perception of being cared for that is more strongly related to children's adjustment and well-being (Beeman, 2001). It is also unclear how the size of social network interacts with the perceived quality of social support to influence children's adjustment. In addition, understanding the relationship between social support and social networks has practical implications. For instance, social support interventions may target the amount of support (social embeddedness) or the quality of relationships or interactions (perceived social support). Thus, a better understanding of how social support works is important in developing effective interventions aimed at helping these children (Beeman, 2001).

How Social Support Relates to Adjustment

At this point, there is no agreement as to exactly how social support works to mitigate negative effects. Two main models have been proposed that link social support and adjustment. One model assumes a direct or main effect in which social support has a beneficial effect on adjustment regardless of a person's current level of stress. The other model states that the negative effects of stress are ameliorated by the presence of social support. The latter model is known as the stress-buffering hypothesis because it assumes that social support alleviates the effects of life events on adjustment under high stress circumstances. According to this model, social support serves as a buffer against stress by affecting the way an individual appraises a stressful event and by enhancing the

individual's coping response to the event (Cohen & Wills, 1985). For example, individuals with high levels of social support may perceive negative events as being less personally threatening, and they may efficiently use available support resources in formulating responses. Thus, a person who experiences high levels of social support might be more resilient in the face of life stress and might be less likely to experience adjustment problems (Licitra-Kleckler & Waas, 1993).

Cohen and Wills (1985), in an extensive review of this literature, indicated that there is empirical support for both main effect and buffering models. However, the ways in which measures of social support networks and stress are used in studies, and the ways the data are analyzed, can often influence the results in favor of one model over the other. For instance, measures that assess a person's level of integration into a large network or community (e.g., number of people in one's social support network) are more likely to support the main effect model. On the other hand, instruments that assess specific areas of social support relevant to the stressor (e.g., social companionship, esteem) have a greater chance of indicating a buffering effect. Studies assessing the presence of a confidant, or a person to whom the respondent can talk about private and personal issues, also indicate consistent buffering effects. Although these are two competing models, they both contribute to our understanding of the different ways in which social support may operate to facilitate positive adjustment. Research in this area appears to indicate that social support is vital regardless of levels of stress, but support is particularly critical under high stress circumstances (Ystgaard, 1997).

Studies on Social Support and Children's Adjustment

Previous research has largely focused on how parental networks and parents' social support shape their children's adjustment. However, there are a growing number of studies that indicate social support networks may buffer against the impact of stressful life events on children and adolescents (Beeman, 2001). For example, in a study of 86 pregnant adolescents, Barrera (1981) found that those with good social support were less affected by stressful life events and experienced lower levels of depression. Both the amount and quality of perceived social support appeared to affect children's adjustment and well-being. Furthermore, some investigators emphasized the importance of social support from diverse sources and types in the child's ecological context (Dubois, Felner, Brand, Adan, & Evans, 1992).

For the most part, studies indicated the important role of family support in the adjustment of children. For example, Licitra-Kleckler and Waas (1993) assessed the influence of perceived family support on the adjustment of children (N=505) coping with various stressful life events. Both internalizing (e.g., depression) and externalizing (e.g., delinquency) dimensions of adjustment were assessed using the Reynolds Adolescent Depression Scale and a 64-item Delinquency Scale, respectively. In addition, children completed a 40-item Perceived Social Support Scale and the Life Events Checklist in their classrooms. This study found that children with high levels of perceived family support experienced lower levels of depression and delinquency than adolescent with low family support.

In particular, Walker and Greene (1987) found that family closeness correlated with adolescents' (ages 11 to 19) adjustment to high stress circumstances. Those who perceived their families as low in cohesion generally reported greater adjustment

problems than those with high family cohesion. These findings are similar to Cauce, Felner, and Primavera's (1982) study, suggesting that family support was the most important type of social support among a group of low-income children.

Some studies have suggested that having a positive relationship with at least one parent is an important source of support for children, helping them to understand and cope with adversity (Garbarino et al., 1992; Garmezy, 1983). In her extensive review of the literature on the impact of parental discord and divorce on children, Emery (1982) reported that a caring relationship with a parent can protect children from negative effects, such as aggression, conduct problems, and anxiety. Typically, a caring relationship was defined in studies as involving "both positive warmth and a lack of negative feelings" (Emery, 1982, p. 318). For example, in one study of children coping with parental conflict, Hess and Camara (1979) found that those who had a good relationship with a parent coped better than those who did not. In fact, the quality of the parent-child relationship explained a larger proportion of the variance in children's adjustment than did parental discord.

These findings are substantiated by a number of other studies in diverse situations. Children who have positive relationships with their mothers have been found to have high academic achievement and healthy adjustment, and positive father-child relationships are associated with high self esteem and satisfactory peer relations (Parke, 1981). In addition, children coping with stress associated with poverty appear to cope better if they have a close relationship with a parent (Garmezy, 1983). Finally, a good or warm relationship with at least one parent has been identified as a protective factor that

buffers children from the potential adverse effects of parental conflict, parental mental illness, and social disadvantage (Rutter, 1987).

Although social support from parents is a vital factor in protecting children against stressful events, other family members can also shield the children from negative effects. Siblings have been shown to be a vital protective factor for children at risk (Werner & Smith, 1982). Similarly, Sandler (1980) assessed social support in terms of having or not having an older sibling in 71 low-income children (grade 3). These children had been referred by their teachers because they were experiencing adjustment problems. This study found that children with older siblings were more likely to be protected from the negative impact of stressful life events than children who did not have an older sibling. As Sandler (1980) commented, these findings strongly show the supportive role of older siblings for younger siblings during high stress circumstances.

There is also some empirical evidence showing that members of the extended family are important sources of support for children. In her study of resilient children, Werner (1990) discovered that the extended family can lessen stress, encourage coping behavior, and facilitate the child's working through stressful events by providing the child with additional positive and caring role models. If a parent is harmed or unavailable, other significant people in a child's life can play a beneficial role, whether they are aunts, uncles, grandparents, or other extended family (Garbarino et al., 1992; Werner, 1990).

For example, Cochran, Larner, Riley, Gunnarsson, and Henderson (1990) found among boys in families with only the mother as the parent, school success was associated with the amount of task-oriented interaction with adult male relatives. In addition,

children who were influenced by their grandparents were less likely to drop out of school. These findings point to the significance of extended family in providing "continuity and support" in the lives of at-risk children (Rhodes, 1994). Under certain circumstances, Rutter and Giller (1983) stated "good relationships outside the [immediate] family can have a protective effect similar to that which apparently stems from within the immediate family" (p. 237).

Although less attention has been given to support from persons outside the family, preliminary results illustrate that support from teachers and other adults in the school setting showed a positive correspondence to children's adjustment. For example, in a 2-year longitudinal study with 166 adolescents (mean age=13), Dubois, Felner, Brand, Adan, and Evans (1992) assessed the links among stressful life events, social supports, and psychological distress. Although preliminary, they discovered promising results. Those who had relatively high levels of support from teachers and other school personnel experienced lower psychological distress than those who had low levels of support. Interestingly, this study found a compensatory role for positive ties with school personnel for youth who had a relatively low level of family support. That is, school support played a stronger role in reducing distress for youth with low levels of family support than for those with higher levels of family support.

These results are similar to several other studies that have included support from teachers and other adults at school (Cauce et al., 1982; Dubow & Tisak, 1989; Rowlison & Felner, 1988). In one study of 682 adolescents (Grades 7-12), Rowlison and Felner (1988) found that each of the three sources of support they assessed (i.e., family, friend, teacher and other school personnel) was related to children's self-reported adjustment. In

another study of low-income children, Cauce et al (1982) reported that support from teachers was positively related to school performance. Taking these findings into account, Dubois et al. (1992) emphasized the important contribution of support from teachers and other school personnel in influencing children's adjustment.

Finally, a number of studies have suggested that support from peers is an important factor in children's adjustment. For example, Wasserstein and La Greca (1996) hypothesized that support from close friends and classmates would moderate the adverse impact of marital conflict on 96 ethnically diverse children (grade 4 to 6). Children were asked to complete the Social Support Scale for Children and Adolescents (Harter, 1985) in their classrooms. In addition, they were interviewed individually about their parents' marital conflict. Their teachers also reported on the children's behavioral adjustment. Investigators found that close friends in the study provided emotional support in both home and school situations, while classmates only provided support within the classroom setting. In addition, close friends provided significantly higher levels of emotional support than classmates. For these reasons, it was concluded that support from close friends, rather than from classmates, was a significant moderator of children's adjustment. Consistent with these results, Cauce (1986) found that perceived emotional support from friends significantly related to school performance among 98 African American children from low-income families.

As discussed earlier, the study by Licitra-Kleckler and Waas (1993) assessed peer support in addition to family support. Although perceived peer support was not a strong predictor of delinquency, it was significantly related to levels of depression. Those who viewed their friends as supportive tended to experience less depression than those who

reported low or no peer support. The important role of perceived peer support found in this study is consistent with Greenberg, Siegel, and Leitch (1983), who found that the nature and quality of adolescents' relationships with peers was strongly associated with self-esteem and life satisfaction. These investigators noted that peer groups, "which offer friendship, a sense of worth, and a feeling of belonging," may help to support children during periods of high stress (Licitra-Kleckler & Waas, 1993, pp. 395-396).

In addition, Walker and Greene (1987) found that peer support had differential impacts on the adjustment of male and female adolescents. As negative life events increased, males with low peer support reported more adjustment problems, while males with high support remained relatively unaffected. At low levels of negative life events, peer support was unrelated to males' adjustment. Walker & Greene (1987) argued that these findings seemed to suggest peer support becomes critical for males only when there is a pileup of negative events. In contrast to male adolescents in the study, peer support was important to females' well-being irrespective of the level of negative life events. Females with low support had consistently high levels of adjustment problems. According to Walker and Greene (1987), social isolation represents a stressor in itself and contributes to females' adjustment even in the absence of discrete life events. Females with high support, however, had few adjustment problems when negative life events were infrequent. As negative life events increased, females with high peer support and those with low peer support were similar in their adjustment, thus indicating an absence of a buffering effect. As Walker and Greene (1987) indicated, these findings do not necessarily identify buffers of negative life events but point to resources that may influence adolescents' adjustment regardless of such events. After all, peer support was

among the variables (personal efficacy and family support variables) that explained a large proportion of the variance in adjustment over and above that accounted for by sex and negative life events (Walker & Greene, 1987. Overall, these findings suggest that peer social networks are important factors in children's adjustment.

Interestingly, in a group of 139 sixth grade German students (age 12), Van Aken and Asendorpf (1997) investigated whether support from one type of relationship can be compensated for by support from other relationships (mother, father, grandparent, other adult, sibling, classmate, non-school peer, and young child). This study reported several interesting results. First, level of social support was fairly specific to particular kinds of network members, and low support within the nuclear family was fairly independent of low support from other relationships. Second, children with low support from their mother or father experienced a general low self-worth, but those with low support from siblings or non-school peers did not. Third, low support from one parent could be compensated for only by support from the other parent. Finally, low support by classmates was not compensated by support from other children. Thus, these results highlighted that social support is highly specific to relationships, with mothers playing a particularly critical role in providing support for children.

However, some investigators have reported that support from peers, rather than from the family, is an important buffer against stressful experiences (Kaplan, Robbins, and Martin, 1983). Interestingly enough, other investigators have found that parental support worsened the impact of stressful life events on children and adolescents (Hotaling, Atwell, & Linsky, 1978). This variability in the literature indicates that to specify the importance of social support to children, it will be necessary to explore the

separate contributions of various sources of support in moderating between stressful life events and adjustment (Walker & Greene, 1987).

Nevertheless, these studies collectively indicate that social support serves as a significant moderator for high-risk groups of children. Furthermore, this research highlights the influence of social support, both inside and outside the family, in protecting children from the adjustment problems associated with stressful life experiences. However, "the differential adaptive significance and contributions of the diverse sources and types of support that define the ecological contexts of children's lives have not been adequately considered" (Dubois et al., 1992, p. 544). The small number of current studies has typically focused on the contributions of support from family members and peer friends. Much less attention has been given to other key sources of support for children, such as teachers, counselors, and other adults in the child's life. Several studies that have broadened their focus to consider support from the school setting have reported promising results, with support from teachers and other adults at school correlating positively with children's overall adjustment (Dubois et al., 1992). These findings, although preliminary, encourage further exploration into how children's relationships with various individuals in their surroundings impact their adjustment after exposure to domestic violence.

Social Support and Children Exposed to Domestic Violence

Most studies reviewed in this paper tended to involve stress coming from *outside* the family. In the case of domestic violence, when a family member generates the source of stress, those more affirming features of family relationships may not be as supportive. Because children typically reside with their mothers after domestic disturbances, mothers

are sources of nurturance and guidance for the children (Jaffe, Hurley, & Wolfe, 1990). However, research with women who have experienced domestic violence has indicated that such women remain particularly vulnerable because they are often isolated from friends, family, and social services, by the assailant, and by the abuse (e.g., Nielsen, Endo, & Ellington, 1992; Sullivan, Tan, Basta, Rumptz, & Davidson, 1992). Sullivan, Campbell, Angelique, Eby, & Davidson (1994) indicated that the presence of social support networks enabled women to cope more positively with their situations. However, the role of social support networks for their children is less clear. Thus, it becomes important to determine and understand the degree to which their children are connected or isolated from significant others in their surroundings. It is also particularly important to explore how social networks interact with the degree to which children perceive social support and, in turn, impact their adjustment.

Although the literature in this field emphasizes the importance of social support from persons outside the home to children exposed to domestic violence, there have been few studies on the role social support networks play in children's adjustment. Some researchers have examined the child's relationships with his or her mother or the battering father, primarily exploring how their relationships changed as a result of the violence (Beeman, 2001). Only a few investigators have looked beyond the parental relationship to relationships with other adults or peers. The results, although preliminary, tend to suggest that social support may mitigate negative effects.

In one small study of children who grow up in homes characterized by domestic violence, several investigators examined the role of social support in responses to crisis incidents (Blanchard, Molloy, & Brown, 1992). Eighteen children were asked where

they went for help during a crisis and right after a violent episode at home. This study found that, although some children reported their mothers as a source of support, others noted that their mothers were too overwhelmed to assist them. According to the children, a good source of support for them was a caring adult with whom they could talk openly and safely about their situations. Interestingly, they identified this support as coming from various sources, including neighbors, relatives, teachers, and adult domestic violence workers. Unfortunately, these children realized that most people would not respond to their requests for help, as people generally did not understand or want to know about domestic violence. Yet, they expressed a need for support to deal with the violence at home.

Using the Supportive Relationship Questionnaire (SRQ), Kolbo (1996) assessed the impact of social support networks on the adjustment of 60 child witnesses, ranging in ages from 8 to 11. Their mothers completed a modified version of the Conflict Tactics Scale (CTS), indicating the severity and frequency of the violence to which they were exposed. Measures of child behavior using the CBCL and child self worth were also used to assess the relationship between exposure to violence, social support networks, and adjustment.

Paradoxically, children in this study had significantly higher levels of behavioral adjustment problems but felt higher levels of self worth than the children in the comparison group. There was a strong relationship between high levels of social support and ratings of self-worth, but only in boys. It is important to note that, regardless of the level of social support, low levels of exposure to violence were associated with higher

ratings of self-worth for all children; whereas exposure to higher levels of violence produced more variability in children's self-worth ratings.

Kolbo (1996) explained that the lack of buffering for girls may have to do with the care-giving role that girls take in these circumstances, further increasing their own psychological stress. This study was limited in that, although children were asked who they would like to have fun with, the support they receive for problems or interpersonal difficulties was not examined. Therefore, it is conceivable that the adverse impact of domestic violence on girls was shielded by social support in some of these other areas and that the findings may be reflecting a gender difference in the kind of support that was sought or received by girls and boys, rather than a gender difference in the buffering role of social support in general.

In another study (Rawlins, 1993), the role of social support networks on the adjustment of children exposed to domestic violence was assessed with seventy-one children. Half of these children resided in domestic violence shelters and the other half was from the community, serving as the comparison group. Using both the Self Perception Profile and CBCL, Rawlins (1993) assessed social competency and child behavioral problems as outcomes associated with domestic violence. No differences were found between witnesses and non-witnesses as a function of the size of social support networks. Interestingly, the social support networks of children who were not exposed to domestic violence were more likely to include their mother, father, and other family members. Holding groups constant, children with larger support networks received higher competency scores, with the lowest social competency scores being received by children who were exposed to violence and simultaneously had small social

support networks. Consistent with the results of Kolbo's study, social support did not affect behavioral scores for either group of children. However, neither study examined the quality of the social support they received from the different people they reported, nor did either evaluate how different sources (e.g., mothers vs. teachers) of social support may have moderated the children's adjustment.

The positive influence of social support on children is further evidenced by O'Keefe's findings (1994b). This study assessed both the impact of social support received by the child's family from agencies and outside individuals, and the quality of the parent-child relationship as rated by both parents and children. It was found that both higher quality levels of family support protected children from the negative effects of domestic violence.

Interestingly, some investigators did not find the beneficial influence of social support among children. For example, McCloskey, Figuerdo, and Koss (1995) included social support measures in their studies but did not find that social support shielded children from the violence they witnessed. However, only parental and sibling supports were assessed in this study, limiting the conclusions to these types of social support. It is also important to note that this study found children from violent homes to report less overall social support than children from the comparison group. The study is also limited in that it did not assess social support in a comprehensive manner. Respondents were only asked about the number of relatives living in close proximity. As a result, it is impossible to determine whether these relatives even play a role in the children's lives. It is also unclear whether they served as a source of social support or as a source of stress and aggravation for the children.

Given the limitations of the studies cited above and their small number, it is too premature to draw conclusions from their research. Instead, these preliminary findings serve to suggest additional directions for research.

Purpose of The Study

Since network size alone is not necessarily representative of supportiveness, it is critical to investigate both the breadth/scope of children's social connections and the quality of their social support as they relate to their adjustment (Crittenden, 1985). Specifically, the aims of this study were twofold. The first aim was to investigate the degree to which children in the study were connected to significant individuals in their ecological context (social connection). The second aim was to examine relationships among social connection, perceived emotional support, and children's adjustment after exposure to domestic violence. Figure 1 illustrates the conceptual model of this study. In particular, the current study investigated the following questions:

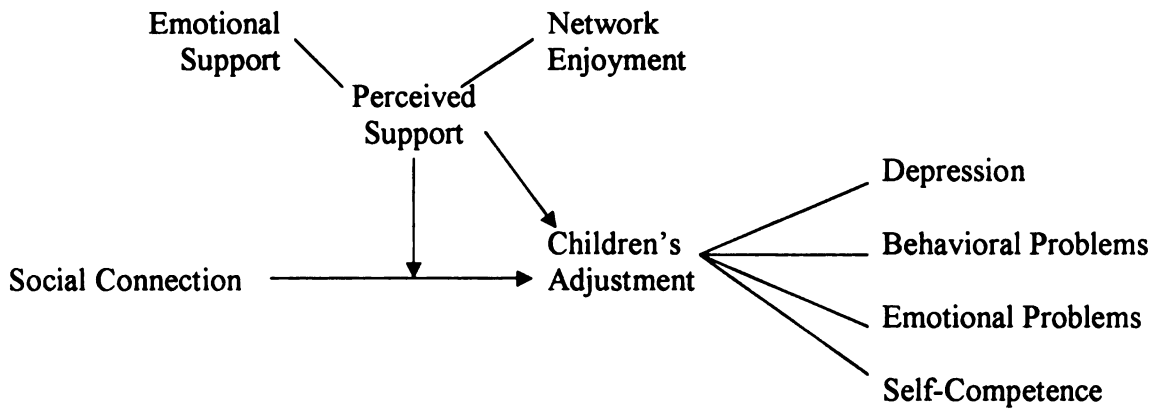
1. To what extent are children in the study connected to significant others in their surrounding (social connection)? In other words, how many types of significant others are in these children's lives?

2. To what extent is children's adjustment influenced by the degree to which they are socially connected with others?

3. To what extent is children's adjustment influenced by perceived support from others?

4. To what extent does the scope of children's social connection interact with perceived support and, in turn, influence their adjustment?

Figure 1: Conceptual Model:
Relationships Among Social Connection, Perceived Support, and Children's Adjustment



In order to isolate the effects of social support on adjustment, it was necessary to control for initial differences in age, gender, and severity of their exposure. These factors have been found to moderate the relationship between exposure to domestic violence and children's adjustment (Sullivan et al., 2000; Edleson, 1999; Jouriles et al., 1989). In particular, it is important to recognize that domestic violence varies in its impact on children depending on the severity to which they are exposed. For example, investigators have found that children who witnessed both verbal and physical domestic violence have greater adjustment problems than children who have witnessed only verbal abuse (Peled & Davis, 1995). Therefore, this study controlled for initial differences in gender, age, and severity of exposure in order to assess the unique impact of social support on the adjustment of children exposed to domestic violence.

Having accounted for these initial differences, it was hypothesized that social connection and perceived support would have beneficial effects on the emotional and behavioral adjustment of children who had witnessed domestic violence. The first

expectation was that the greater the number of social connections in these children's lives, the more shielded they would be from the adverse impact of domestic violence. For instance, children who had small networks, or those with a limited number of social connections, were expected to display more emotional and behavioral problems. Children with a large number of social connections were expected to experience fewer adjustment problems in spite of domestic violence. Second, it was hypothesized that the higher the quality of perceived social support, the fewer adjustment problems they would have. Finally, it was hypothesized that the effects of social connection on children's well-being would be moderated by the level of support received from others around them.

Method

This study was part of a larger project designed to understand the experiences of children and their mothers who have experienced domestic violence. The larger study is a longitudinal investigation evaluating the long-term impact of an advocacy intervention program for women with abusive partners and their children. However, analyses in this study were only based on data collected during the initial interview.

Participants

Participants in this study consisted of 158 children who had been exposed to some form of domestic violence within the four months prior to their interviews. Additional information about the children's emotional and behavioral adjustment was gathered from the perspectives of their 158 mothers who had experienced domestic violence within the four month period. Families were recruited from various local community agencies

providing services to low-income families who have experienced domestic violence. These places included a legal aid office (n=15), two domestic violence victim service programs (n=33), a law enforcement emergency response team (n=74), and a personal protection order office (n=36).

Procedure. Through these various local community agencies, two staff recruiters approached women with at least one child between the ages of 5 and 12 living with them, who had experienced domestic violence within the last four months. The women and their children within the specified age range were invited to participate in the study. If more than one child in the age range in the family participated in the study, data analyses were conducted on only one of the children who had been chosen randomly to be the focus of investigation. They were told that participation in this study was entirely voluntary. The women and their children were free to refuse to be in the study, and their refusal did not influence the services they received from the local agency. Furthermore, they were able to withdraw their consent and stop participation in this study at any point of the interview without penalty to them. Only after women consented to participate in the study were the children approached separately and had the study explained to them. Prior to their interview, participants were told that the interview would be strictly confidential and that their information would not be shared with anyone.

Participants were given a numeric identification in order to protect their confidentiality. Their names were not associated with their numeric identification. Information linking the participants' names to their identification numbers was kept in a locked file. Only the investigators could have access to this file.

Interviewers consisted of female undergraduate students who participated in the project for college course credit. Based on a manual developed for this project (Sullivan, Juris, Gauthier, Nguyen, & Prewitt, 1997), the interviewers received intensive training in interviewing skills for both adults and children, in sensitivity training in working with a diverse community population, and in knowledge about domestic violence. Prior to conducting interviews with participants, inter-rater agreement among the interviewers had to reach at least .90. All interviews were organized in teams of two or more, consisting of adult interviewers, child interviewers, and babysitters for younger children.

Most of the interviews were completed in the women's homes. The remainder were conducted in places that were safe and convenient for the families (e.g., the project office on campus, a domestic violence shelter). To ensure privacy and confidentiality, interviews were carried out in separate rooms for each member of the family. The length of the children's interview ranged from 55 minutes to 180 minutes, with an average of 90 minutes. Interviews with mothers tended to be longer, ranging from 80 minutes to 300 minutes, with an average of 120 minutes. Women were compensated $20 and children were given either $5.00 or a toy of an equivalent value, at their choosing.

Measures

This study employed a number of preexisting standardized measures as well as some that were designed or modified specifically for this research. Measures were selected and/or created to assess children's witnessing of domestic violence, overall adjustment, as well as their social support networks. Table 1 presents means, standard deviations, and medians for all measures included in this study.

Children's witnessing of domestic violence. Mothers were asked to indicate how much their children witnessed their emotional abuse, physical abuse, and threats against them. They were asked to respond to a total of 3 items, using a 6-point Likert scale (1 = "never" to 6 = "more than 4 times a week"). The first question asked mothers to respond to how often their children had seen or heard the assailant ridicule, criticize, control, or humiliate them. The second question asked how often their children had seen or heard them being threatened. The third question asked how many times their children had seen or heard physical assaults against them. The severity of children's exposure to domestic violence was created based on mothers' responses to these three items. Due to a small number of items, this measure has a coefficient alpha of .62. This measure is located in Appendix A.

Children's overall adjustment. Children's internalizing and externalizing behaviors, and perceived self-competence, were assessed in order to obtain an assessment of their overall adjustment. Internalizing symptoms were characterized in terms of emotional problems such as sadness, withdrawal, somatic complaints, fear, and anxiety. Alternatively, externalizing symptoms included behavioral problems such as aggression, disobedience, opposition, and destructivenss (Jaffe, Wolfe, & Wilson, 1990). Internalizing and externalizing behaviors were assessed in several ways.

The Eyberg Child Behavior Inventory (ECBI; Robinson, Eyberg, & Ross, 1980) is a 36-item questionnaire of externalizing problems. Completed by mothers, this measure was designed to assess children's behavior on two dimensions, the frequency of emotional and behavioral symptoms and the identification of these symptoms as problems. The frequency ratings were based on a 7-point Likert scale (1 = "never" to 7 =

"always"). The frequency items were tallied to yield an overall problem behavior Intensity Score. The problem identification measure involved having the mother answer "yes" or "no" when asked, "Is this behavior a problem for you?" The total Problem Score (between 1 and 36) was calculated by taking the total number of problems the mother confirmed. Only the Frequency/Intensity scale was analyzed in this study and has a coefficient alpha of .92. This measure is located in Appendix B.

A measure was developed based on the Child Behavior Checklist (CBCL; Achenbach, 1986) to assess internalized dimensions of adjustment. Using a 7-point Likert scale, mothers were asked to rate the frequency of emotional symptoms and identify whether they perceived these symptoms as problematic in their children. The coefficient alpha for this measure is .82. This measure is located in Appendix C.

The Children's Depression Inventory (CDI) is a 27-item self-report questionnaire for children ages 7-17 (Kovacs, 1983) derived from the Beck Depression Inventory (Beck, 1967). It was designed to assess the presence and severity of depressive symptoms such as sadness, suicidal thoughts, and sleep and appetite disturbance. This scale has been shown to have satisfactory internal consistency, and adequate test-retest reliability (Kovacs, 1983). Coefficient alpha for the CDI is .85. This measure is located in Appendix D.

Perceived self-competence was measured by Harter's (1985) Scale of Perceived Self-Confidence, given directly to the children. The six subscales, measuring children's perceptions of their own scholastic competence, social acceptance, athletic competence, physical appearance, behavioral conduct, and global self-worth, have acceptable reliability (.73 to .83). Moreover, they have been used with other children exposed to

domestic violence. The coefficient alpha for this scale is .86. This measure is located in Appendix E.

Children's social support networks. Social connection and perceived social support were assessed with a modified version of the Social Support/Cohesion Scale (Seidman, Allen, Aber, Mitchell, Feinman, Yoshikawa, Comtois, Golz, Miller, Ortiz-Torres, & Roper, 1995). This measure contained 14 items, with three parts to each question. First, children were asked to indicate whether various categories of relationships were present in their lives. If they indicated yes, they were asked to respond to whether each person was important to them. Second, children indicated how much fun it was to be with each of them. Finally, children indicated how helpful they found each person to be when they felt "sad or upset."

Part one of each question addressed the extent to which children were socially connected to significant others in their environment. In this study, social connection was assessed by the presence of significant social ties with various categories of individuals. More specifically, social connections were classified according to relationship to the child (mother, assailant, father, grandparent, aunt or uncle, sibling, cousin, peer, teacher or principal, counselor, best friend, close friend, other child with whom they spend time, other adult living in their household, and other adult outside of the family). In this way, measures of social connections were counts of the number of categories of significant people summed across the 14 items.

The subscale for "fun and enjoyment" was created based on responses to questions from part two; whereas the emotional support scale was created from part three of each question. These two subscales (fun and enjoyment and emotional support) were

then combined to create an overall scale "satisfaction with social support." Coefficient alpha for the scales could not be determined because some items were not applicable due to the absence of specific types of individuals from some children's networks (e.g., having no siblings, having no cousins). The Social Support/Cohesion Scale is located in Appendix F.

Table 1

Means, Standard Deviations, and Medians of All Scales Used in the Study
N=158

	Mean	Median	Standard Deviation
EXPOSURE			
Severity of Exposure	3.97	3.67	1.56
SOCIAL SUPPORT			
Social Connection	7.86	8.00	1.88
Perceived Support	3.41	3.45	0.40
Emotional Support	3.20	3.33	0.57
Fun and Enjoyment	3.61	3.71	0.35
ADJUSTMENT			
Depression	9.20	8.00	7.06
Behavioral Problems	3.19	3.07	0.10
Emotional Problems	2.50	2.22	1.14
Self-Competence	3.06	3.12	0.48

Data Analysis

My data analysis first involved examining the distribution of responses of items to assess both normality and adequate variability of responses. I conducted a confirmatory factor analysis (CFA) on the Social Support/Cohesion Scale to analyze internal consistency. If the CFA indicated any items that did not load on the latent construct, they were omitted. On the Eyberg Child Behavior Inventory (ECBI), Children Depression Inventory, and the Harter's Perceived Competence Scale, I conducted confirmatory factor analyses to analyze their internal consistencies. Again, if the CFA indicates items that did not load on the latent constructs, they were omitted. No item was omitted in all of these analyses.

After examining the distribution of measures statistically and graphically, I analyzed the demographic data, correlating the relationships between demographic variables and perceived support as well as children's overall adjustment. For example, I assessed potential differences with regard to age and gender of the children.

Finally, I employed hierarchical multiple regression to examine relationships among social connection, perceived support, and children's adjustment after exposure to domestic violence. Because hierarchical multiple regression allows the investigator to control the order of entry of variables, "nuisance" variables were given higher priority for entry (Tabachnick & Fidell, 1996). I first entered gender, age, and severity of exposure variables. Then the social support variable was evaluated for what it added to the prediction over and above gender, age, and severity of exposure variables. In so doing, I was able to predict children's overall adjustment (the DV) from social support (the IVs)

while holding constant initial differences in child abuse and severity of exposure (the nuisance IVs).

The contribution of the interaction between social connection and perceived support to child adjustment was tested by adding the interaction term to the regression. This was completed after entering the control variables and the main effects of the two social support variables that form the interaction. Methods recommended by Aiken and West (1991) were used for configuring and interpreting the direction of the interaction effect.

Results

Demographics of Participants

Analyses for this study were based on sixty-four girls and ninety-four boys who had witnessed domestic violence within four months prior to their interviews (N=158). In addition, information about the children's behavioral and emotional adjustment problems was gathered from their own and their mothers' perspectives. The children's age ranged from 4 to 13 years old, with a mean age of 8. The ethnic/racial composition of the children in the sample indicated that approximately 39% were identified by their mothers as African-American; 32% were non-Hispanic white or Caucasian; 4% were Hispanic/Chicana/Latina; and 25% were bi-racial. Similarly, 38% of the children's mothers were African-American; 45% were white or Caucasian; 7% were Hispanic/Chicana/Latina; 1% were Native American; and 9% were bi-racial.

Seventy-two percent of the mothers had at one time been employed within the four months prior to their participation in this study. However, only fifty-four percent of the mothers were employed at the time of their interviews. Forty percent of the mothers had completed some college education; 23% were high school graduates; 20% had less than high school education; 10% had an Associate degree; 3% had a Bachelor degree; and 6% had graduated from a trade school. The average total family income was $1638.95 per month. The lowest total family income was $232.00 per month, while the highest income was $6800.00, with a median of $1461.00 per month. On average, this income supported the mother and four children.

Severity of Children's Exposure to Domestic Violence

Fifty percent of the children had witnessed abuse against their mothers between one and four times within the prior four months. Thirty percent had witnessed abuse at least two to three times a month, with 12% of these witnessing their mother being abused at least one to two times a week.

More specifically, the sample mean of children's exposure to verbal/emotional abuse (ridiculing and threats) was 3.56 (sd=1.68). Fifty-seven percent of the children had seen or heard the assailant ridicule their mothers at least two to three times a month, with 14% of these witnessing her being ridiculed more than four times a week. Thirty-six percent had witnessed the assailant ridicule their mothers between one to four times within the four months prior to their interviews. Only about 6% of the children in this study had not seen or heard the assailants ridicule their mothers within the four month period. Furthermore, 40% of the children had seen or heard the assailant threaten their mother, ranging from two to three times a month to more than four times a week. Thirty-seven percent had witnessed the assailant threaten their mothers between one to four times within the four month period. Twenty-three percent had not seen or heard the assailant threaten their mothers.

In addition to witnessing verbal/emotional abuse toward their mothers (ridiculing and threats), children also had witnessed physical assaults against them. The sample mean of children's exposure to physical abuse was 2.60 (sd=1.35). Twenty percent of the children had seen or heard the assailant physically harm their mothers from at least two times a month to more than four times a week. Fifty-seven percent saw or heard physical abuse against their mothers one to four times within the four month period. Twenty-four percent had not seen or heard physical abuse against their mothers. Although children

had been exposed to varying degrees of domestic violence, all children in this study had mothers who had experienced domestic violence within the four month period. There was one missing case due to interviewer errors. See Table 2 for a description of children's exposure to violence against their mothers.

Table 2

Severity of Children's Exposure to Domestic Violence within Prior Four Months
N=157

Children's Exposure to Ridicule against Their Mothers within Prior Four Months

	n	%
Never	10	6
Once/one	27	17
Once a month or less (2 to 4 times)	31	20
Two to three times a month	33	21
One or two times a week	22	14
Three or four times a week	12	8
More than four times a week	22	14

Children's Exposure to Threats against Their Mothers within Prior Four Months

	n	%
Never	36	23
Once/one	32	20
Once a month or less (2 to 4 times)	27	17
Two to three times a month	22	14
One or two times a week	22	14
Three or four times a week	11	7
More than four times a week	7	5

Children's Exposure to Physical Abuse against Their Mothers within Prior Four Months

	n	%
Never	37	24
Once/one	42	27
Once a month or less (2 to 4 times)	47	30
Two to three times a month	18	11
One or two times a week	6	4
Three or four times a week	5	3
More than four times a week	2	1

Children's Overall Exposure to Domestic Violence within Prior Four Months

	n	%
Never	30	19
Once/one	40	26
Once a month or less (2 to 4 times)	38	24
Two to three times a month	22	14
One or two times a week	19	12
Three or four times a week	7	4
More than four times a week	1	1

Children's Social Connections

Research question #1 pertained to the degree to which children were connected to significant others in their surroundings. Social connection was assessed by the presence of significant ties to 14 categories of people rather than by the number of people within these categories. Excluding their mothers, the lowest number of social connections children had was one, while the highest was 12, with a median of seven. These results suggest that most children in this study were connected to a number of types of significant individuals in their environment. Thirty-nine percent of the children endorsed between 9 and 12 social connections; 55% had between 5 and 8; and 6% had between 1 and 4 social connections (See Table 3).

Mothers were automatically presumed to be important social connections in their children's lives. Therefore, children were not asked whether their mother was important

to them. Seventy percent of the children reported that the assailant was important to them; 42% reported their biological father, if different from the assailant; 91% reported a grandparent; 89% reported a sibling; 86% reported an adult relative; 84% reported a child relative; 75% reported a teacher or a principal; 34% reported a counselor; 91% reported a best friend; 67% reported a close friend; 48% reported at least one other child with whom they spent time; 7% reported an important adult living in the same household (parent's friend, aunt's friend/boyfriend, babysitter, patients for whom their mothers care); and 6% reported an important adult outside the family (stepfather, tutor, neighbor, friend's parents, mother's friend, bus driver).

Table 3

Children's Social Connection

SOCIAL CONNECTIONS	n	%
Mother	158	100
Grandparent	144	91
Best friend	144	91
Sibling	141	89
Adult relative	136	86
Child relative	132	84
Teacher or principal	119	75
Assailant	105	67
Close friend	105	67
Other child	75	48
Biological father (if different from assailant)	66	42
Counselor	54	34
Other adult in household	11	7
Other adult not in household	10	6

Children's Perceived Social Support

Ninety-seven percent of the children reported some satisfaction with their overall perceived social support, with 3% reporting a high level of satisfaction. The sample mean of the emotional support subscale was 3.20 (sd=0.57). Ninety-one percent of the children reported some satisfaction with emotional support, with 6% reporting a high level of satisfaction. Only 3% of the children reported that they were not at all satisfied with perceived emotional support they received. The sample mean for the enjoyment subscale was 3.61 (sd=0.35). Eighty-four percent of the children reported that they had "some fun" with their social connections, with 16 % reporting "a lot of fun."

Relationships among Control, Predictor, and Outcome Variables

As can be seen in Table 4, a number of significant relationships among the control, predictor, and outcome variables were found. First, there was a moderate to high correlation among the predictor variables. It was found that the more socially connected the children, the higher their perceived support ($r=.31$; $p<.01$), emotional support ($r=.30$; $p<.01$), and enjoyment of this network ($r=.23$; $p<.01$). There were also significant correlations among the outcome variables. A high inverse correlation emerged between children's depression and perceived self-competence ($r=-.62$; $p<.01$). That is, children who had lower levels of depression also reported significantly higher perceived self-competence. Moreover, children's emotional adjustment problems correlated positively with behavioral adjustment problems ($r=.50$; $p<.01$); whereas the relationship between emotional adjustment problems and perceived self-competence was negative ($r=-.28$; $p<.01$). Essentially, children with fewer emotional adjustment problems also had fewer behavioral adjustment problems and higher perceived self-competence. Additionally,

although the severity of children's exposure to domestic violence has been linked with children's adjustment, it was not significantly related to depression, emotional adjustment problems, or perceived self-competence for this sample of children.

Lastly, correlations were conducted to examine whether the age of the children in the study was related to any of the predictor and outcome variables. T-tests were conducted to examine whether there were differences between boys and girls on any of the predictor and outcome variables. It was found that age was significantly related to social connection ($r=.21$; $p<.05$). That is, in general, as the children's age increased so did the number of social connections they had in their surroundings. In addition, girls reported greater satisfaction with perceived support ($t(156)=2.49$; $p<.05$; girls' mean=3.50; boys' mean=3.34) and emotional support ($t(156)=2.90$; $p<.05$; girls' mean=3.56; boys' mean=3.09) than did boys. These results indicated that, although age and gender were theoretically important, these demographic factors were not significantly related to any of the outcome variables, in the current study.

Table 4

Correlation Matrix

	Age	Severity of Exposure	Social Connection	Perceived Support	Emotional support	Network Enjoyment	Depression	Behavioral Problems	Emotional problems	Self-Competence
Gender (0=female, 1=male)	.12	-.02	-.12	-.20*	-.23**	-.07	-.06	.07	.05	.14
Age	—	-.02	.21**	.09	.11	.02	-.15	-.13	.02	-.04
Severity of Exposure		—	.04	-.04	-.05	-.02	.03	.15	.14	.10
Social Connection			—	.31**	.30**	.23**	-.19*	-.02	.03	.01
Perceived Support				—	.92**	.77**	-.09	-.03	.11	.20*
Emotional Support					—	.46**	-.04	.05	.19*	.15
Network Enjoyment						—	-.13	-.15	-.06	.21*
Depression							—	.13	.10	-.62**
Behavioral Problems								—	.50**	-.15
Emotional problems									—	-.28**

* p<.05, ** p<.01 (2-tailed)

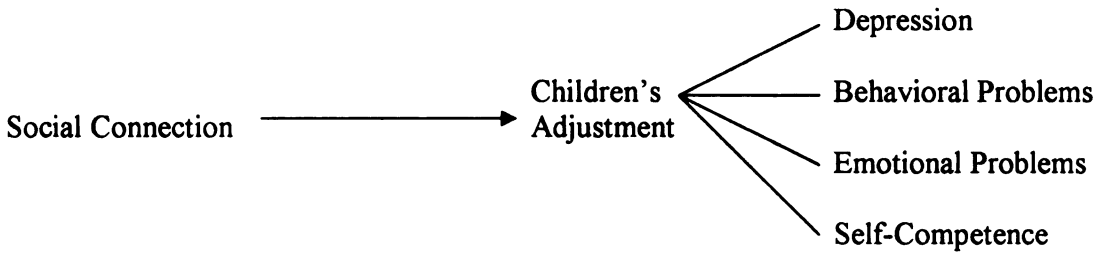
Relationships Among Social Connections, Perceived Support, and Children's Adjustment

Hierarchical multiple regression analyses were conducted to examine the influence of social connection and satisfaction with perceived support on each of the four outcome variables: depression, behavioral adjustment problems, emotional adjustment problems, and perceived self-competence. A total of ten models were tested to examine relationships among social connections, perceived support, and children's adjustment after exposure to domestic violence.

Relationships between Social Connection and Children's Adjustment

Model 1 regressed the adjustment scores upon the social connections scale scores. This model addressed the second research question about whether children's social connection was related to their depression, behavioral adjustment, emotional adjustment, and perceived self-competence (See Figure 2). Variables for this model were entered in three blocks. In the first block, children's gender and age were entered as controls because these variables were theoretically related to outcome variable. In the second block, the severity of their exposure was entered. In the third block, the score from the social connection scale was entered.

Figure 2: Relationships between Social Connection and Children's Adjustment



Social Connection and Depression. This model addressed the extent to which social connection was related to children's depression. Results indicated that this model accounted for approximately 6% (R^2=.058) of children's variance in depression. Beta was -.19, indicating a negative direction of influence with one standard deviation increase in social connection scores associated with a -.19 standard deviation decrease in depression score. The R^2 change associated with the inclusion of social connections scale was .03, significant at $p<.05$ (see Table 5). In other words, after accounting for initial differences in gender, age, and severity of exposure, social connection explained an additional 3% of the variance in depression. Therefore, children who had more social connections reported lower levels of depression than children who had fewer social connections.

Table 5: Hierarchical Regression of Depression on Social Connection (N=152)

	Standardized Beta at Block of Entry[a]	Full Model Standardized Beta[b]	t	R^2 Change
Block 1: Controls				
Gender	- .046	- .075	- 0.579	
Age	- .149	- .110	- 1.864	0.026
Block 2: Control				
Severity of exposure	.021	.029	0.267	0.000
Block 3:				
Social connection	- .185	- .185	- 2.271	0.032*
Total R^2				0.058
Total F (4,152)				2.350

* p<.05 ** p<.01

a. Beta in this column is associated with the block of entry for each variable.
b. Beta in this column is associated with the final block when all variables had been entered.

Social Connection and Behavioral Adjustment Problems. This model addressed the extent to which social connection was related to children's behavioral adjustment problems. Results indicated that this model accounted for approximately 5% (R^2=.047) of the variance in behavioral adjustment problems. Beta was .01, indicating that there was no relationship between social connection and behavioral adjustment problems score. The R^2 change associated with the inclusion of social connections scale was .00, indicating no significant change (see Table 6). After accounting for gender, age, and severity of exposure, social connection did not explain any additional variance in children's behavioral adjustment problems. Although gender, age, and severity of exposure were theoretically important, these factors were not significantly related to the dependent variable.

Table 6: Hierarchical Regression of Behavioral Problems on Social Connection (N=152)

	Standardized Beta at Block of Entry	Full Model Standardized Beta	t	R^2 Change
Block 1: Controls				
Gender	.087	.091	1.081	
Age	- .141	- .139	- 1.758	0.025
Block 2: Control				
Severity of exposure	.148	.148	1.875	0.022
Block 3:				
Social connection	.008	.008	0.093	0.000
Total R^2				0.047
Total F (4,152)				1.861

* p<.05 ** p<.01

Social Connection and Emotional Adjustment Problems. This model addressed the extent to which social connection was related to children's emotional problems. Results indicated that this model accounted for about 2% (R^2=.023) of the variance in emotional adjustment problems. Beta was .03, indicating that there was no significant relationship between social connection and emotional adjustment problems. The R^2 change associated with the inclusion of social connections scale was .00, indicating no significant change (see Table 7). After accounting for the control variables, social connection did not explain any additional variance in children's emotional adjustment problems.

Table 7: Hierarchical Regression of Emotional Problems on Social Connection (N=152)

	Standardized Beta at Block of Entry	Full Model Standardized Beta	t	R^2 Change
Block 1: Controls				
Gender	.050	.058	0.619	
Age	.015	.012	0.184	.003
Block 2: Control				
Severity of exposure	.139	.138	1.738	.019
Block 3:				
Social connection	.030	.030	0.365	.001
Total R^2				.023
Total F (4,152)				.897

* $p<.05$ ** $p<.01$

Social Connection and Self-Competence. This model addressed the extent to which social connection was related to children's perceived self-competence. Results indicated that this model accounted for about 3% (R^2=.032) of the variance in perceived self-competence. Beta was .02, showing that there was no correlation between social connection and perceived self-competence. The R^2 change associated with the inclusion of social connection scale was .00, indicating no significant change (see Table 8). After accounting for the control variables, social connection did not explain additional variance in perceived self-competence.

Table 8: Hierarchical Regression of Self-Competence on Social Connection (N=93)

	Standardized Beta at Block of Entry	Full Model Standardized Beta	t	R^2 Change
Block 1: Controls				
Gender	.144	.147	1.418	
Age	- .052	- .040	- 0.509	.022
Block 2: Control				
Severity of exposure	.095	.096	.934	.009
Block 3:				
Social connections	.019	.019	.182	.000
Total R^2				.032
Total F (4,93)				.760

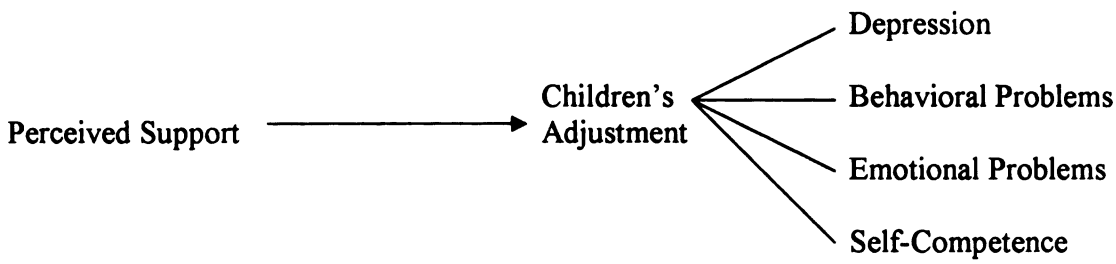
* p<.05 ** p<.01

The results of model 1 supported, in part, the hypothesis that social connection would have a beneficial influence on children's well-being. While social connection was found to be significantly related to children's levels of depression, it was not related to children's behavioral or emotional adjustment problems, nor was it predictive of children's overall perceived self-competence.

Relationships between Perceived Support and Children's Adjustment

Model 2 regressed the adjustment scores upon the satisfaction with perceived social support scale scores. This model addressed the third research question about the extent to which children's adjustment was influenced by their satisfaction with perceived social support (See Figure 3). Variables for this model were also entered in three blocks. In the first block, gender and age were entered as controls. In the second block, scores from the severity of their exposure scale were entered. In the third block, satisfaction with perceived social support scale was entered.

Figure 3: Relationships Between Perceived Support and Children's Adjustment



Perceived Support and Depression. This model addressed the extent to which satisfaction with perceived support was related to children's depression. This model accounted for about 3% (R^2=.034) of the variance in depression. Beta was -.09, indicating no significant change. The R^2 change associated with the inclusion of perceived support scale was .008, indicating no significant change (see Table 9). After accounting for the control variables, perceived support did not explain additional variance in depression.

Table 9: Hierarchical Regression of Depression on Perceived Support (N=152)

	Standardized Beta at Block of Entry	Full Model Standardized Beta	t	R^2 Change
Block 1: Controls				
Gender	- .046	- .066	- 0.579	
Age	- .149	- .140	- 1.864	0.026
Block 2: Control				
Severity of exposure	.021	.017	0.267	0.000
Block 3: Satisfaction with Support	- .091	- .091	- 1.107	0.008
Total R^2				0.034
Total F(4,152)				1.340

* $p<.05$ ** $p<.01$

Perceived Support and Behavioral Adjustment Problems. This model addressed the extent to which satisfaction with emotional support was related to children's emotional adjustment problems. This model accounted for about 5% (R^2=.047) of the variance in behavioral adjustment problems. Beta was .00, indicating no significant change. The R^2 change associated with the inclusion of perceived support was .000, indicating no significant change (see Table 10). After accounting for the control variables, perceived support did not explain additional variance in children's behavioral adjustment problems.

Table 10: Hierarchical Regression of Behavioral Adjustment Problems on Perceived Support (N=152)

	Standardized Beta at Block of Entry	Full Model Standardized Beta	t	R^2 Change
Block 1: Controls				
Gender	.087	.091	1.081	
Age	- .141	- .138	- 1.758	0.025
Block 2: Control				
Severity of exposure	.148	.148	1.875	0.022
Block 3: Satisfaction with Support	.004	.004	0.046	0.000
Total R^2				0.047
Total F(4,152)				1.859

* $p<.05$ ** $p<.01$

Perceived Support and Emotional Adjustment Problems. This model addressed the extent to which satisfaction with emotional support was related to children's emotional adjustment problems. This model accounted for about 4% (R^2=.038) of the variance in emotional adjustment problems. Beta was .13, indicating a positive direction of influence with one standard deviation increase in perceived support scores associated with .13 standard deviation increases in emotional adjustment problems. The R^2 change associated with the inclusion of perceived support scale was .02, indicating no significant change (see Table 11). After accounting for the control variables, perceived support did not explain additional variance in children's emotional adjustment problems.

Table 11: Hierarchical Regression of Emotional Adjustment Problems on Perceived Support (N=152)

	Standardized Beta at Block of Entry	Full Model Standardized Beta	t	R^2 Change
Block 1: Controls				
Gender	.050	.082	0.618	
Age	.015	- .005	0.184	0.003
Block 2: Control				
Severity of exposure	.139	.145	.1.738	0.019
Block 3: Satisfaction with Support	.130	.130	1.593	0.016
Total R^2				0.038
Total F(4,152)				1.511

* p<.05 ** p<.01

Perceived Support and Self-Competence. This model addressed the extent to which satisfaction with emotional support was related to children's perceived self-competence. This model accounted for about 10% (R^2=.097) of the variance in perceived self-competence. Beta was .27, indicating a positive direction of influence with one standard deviation increase in perceived support associated with .27 standard deviation increase in perceived self-competence. The R^2 change associated with the inclusion of perceived support scale was .07, significant at p<.05 (see Table 12). After accounting for the control variables, perceived support explained an additional 7% of variance in perceived self-competence. Therefore, children with greater satisfaction with perceived emotional support reported higher perceived competence than children with lower perceived support.

Table 12: Hierarchical Regression of Self-Competence on Perceived Support (N=93)

	Standardized Beta at Block of Entry	Full Model Standardized Beta	t	R^2 Change
Block 1: Controls				
Gender	.144	.198	1.418	
Age	- .052	- .025	- 0.509	0.022
Block 2: Control				
Severity of exposure	.095	.144	0.934	0.009
Block 3: Satisfaction with Support	.266	.266	2.598	0.066*
Total R^2				0.097
Total F(4,93)				2.494*

* p<.05 ** p<.01

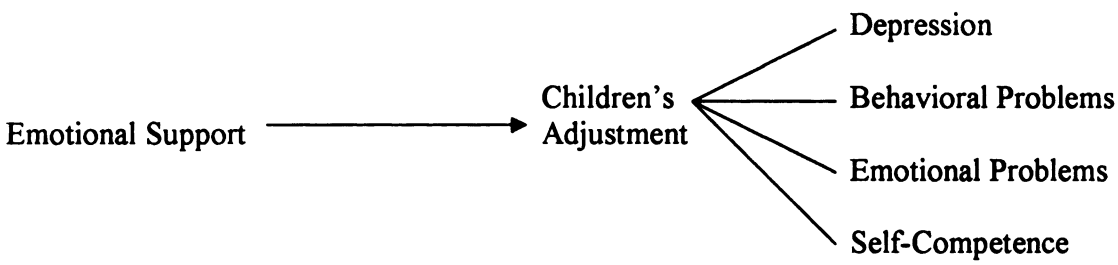
The results of model 2 provided some support for the hypothesis that satisfaction with perceived social support would be beneficial to children's well-being. It was found that perceived support was significantly related to children's perceived self-competence. However, none of the children's behavioral, emotional, or depression problems were significantly influenced by overall perceived social support. However, because children's assessment of enjoyment with their social connections may be distinctively different from their assessment of emotional support, these factors may have differential influences on children's adjustment. Therefore, the next logical step was to examine children's perception of network enjoyment and emotional support separately.

Relationships Between Emotional Support and Children's Adjustment

Model 3 regressed the adjustment scores upon the satisfaction with perceived emotional support subscale scores. This model tested whether children's satisfaction with emotional support was related to their depression, behavioral adjustment, emotional adjustment, and perceived self-competence (See Figure 4). Variables for this model were

also entered in three blocks. In the first block, gender and age were entered as controls. In the second block, scores from the severity of their exposure scale were entered. In the third block, the emotional support subscale was entered.

Figure 4: Relationships Between Emotional Support and Children's Adjustment



Emotional Support and Depression. This model addressed the extent to which satisfaction with emotional support was related to children's depression. Results indicated that this model accounted for about 3% (R^2=.028) of the variance in depression. Beta was -.04, indicating no significant change. The R^2 change associated with the inclusion of emotional support scale was .00, indicating no significant change (see Table 13). After accounting for the control variables, emotional support did not explain additional variance in depression.

Table 13: Hierarchical Regression of Depression on Emotional Support (N=152)

	Standardized Beta at Block of Entry	Full Model Standardized Beta	t	R^2 Change
Block 1: Controls				
Gender	- .046	- .056	- .579	
Age	- .149	- .144	- 1.864	.026
Block 2: Control				
Severity of exposure	.021	.019	.267	.000
Block 3: Emotional support	- .042	- .042	- .504	.002
Total R^2				.028
Total F(4,152)				1.090

* p<.05 ** p<.01

Emotional Support and Behavioral Adjustment Problems. This model addressed the extent to which satisfaction with emotional support was related to children's emotional adjustment problems. This model accounted for about 6% (R^2=.056) of the variance in behavioral adjustment problems. Beta was .10, indicating a positive direction of influence with one standard deviation increase in emotional support score associated with with .10 standard deviation increase in behavioral adjustment. The R^2 change associated with the inclusion of emotional support was .01, indicating no significant change (see Table 14). After accounting for the control variables, emotional support did not explain additional variance in children's behavioral adjustment problems.

Table 14: Hierarchical Regression of Behavioral Adjustment Problems on Emotional Support (N=152)

	Standardized Beta at Block of Entry	Full Model Standardized Beta	t	R^2 Change
Block 1: Controls				
Gender	.087	.115	1.081	
Age	- .141	- .149	- 1.758	0.025
Block 2: Control				
Severity of exposure	.148	.153	1.875	0.022
Block 3:				
Emotional support	.098	.098	1.197	0.009
Total R^2				0.056
Total F(4,152)				2.234

* p<.05 ** p<.01

Emotional Support and Emotional Adjustment Problems. This model addressed the extent to which satisfaction with emotional support was related to children's emotional adjustment problems. Results indicated that this model accounted for about 7% (R^2=.067) of the variance in emotional adjustment problems. Beta was .22, indicating a positive direction of influence with one standard deviation increase in emotional support score associated with .22 standard deviation increase in emotional adjustment. The R^2 change associated with the inclusion of emotional support scale was .05, significant at p<.01 (see Table 15). After accounting for the control variables, emotional support explained an additional 5% of variance in children's emotional adjustment problems. Interestingly, children with greater emotional support reported more emotional adjustment problems than children with lower emotional support.

Table 15: Hierarchical Regression of Emotional Adjustment Problems on Emotional Support (N=152)

	Standardized Beta at Block of Entry	Full Model Standardized Beta	t	R^2 Change
Block 1: Controls				
Gender	.050	.108	0.619	
Age	.015	- .020	0.182	0.003
Block 2: Control				
Severity of exposure	- .110	- .087	- 1.362	0.019
Block 3: Emotional support	.200	.200	2.435	0.045*
Total R^2				0.067
Total F(4,152)				2.743*

* p<.05 ** p<.01

Emotional Support and Perceived Self-Competence. This model addressed the extent to which satisfaction with emotional support was related to children's perceived self-competence. Results indicated that this model accounted for about 7% (R^2=.074) of the variance in perceived self-competence. Beta was .22, indicating a positive direction of influence with one standard deviation increase in emotional support associated with .22 standard deviation increase in perceived self-competence. The R^2 change associated with the inclusion of satisfaction with support scale was .04, indicating no significant change (see Table 16). After accounting for the control variables, emotional support did not explain additional variance in perceived self-competence.

Table 16: Hierarchical Regression of Perceived Self-Competence on Emotional Support (N=93)

	Standardized Beta at Block of Entry	Full Model Standardized Beta	t	R^2 Change
Block 1: Controls				
Gender	.144	.197	1.418	
Age	- .052	- .042	- 0.509	0.022
Block 2: Control				
Severity of exposure	.095	.137	0.934	0.009
Block 3:				
Emotional Support	.216	.216	2.069	0.043*
Total R^2				0.074
Total F(4,93)				1.856

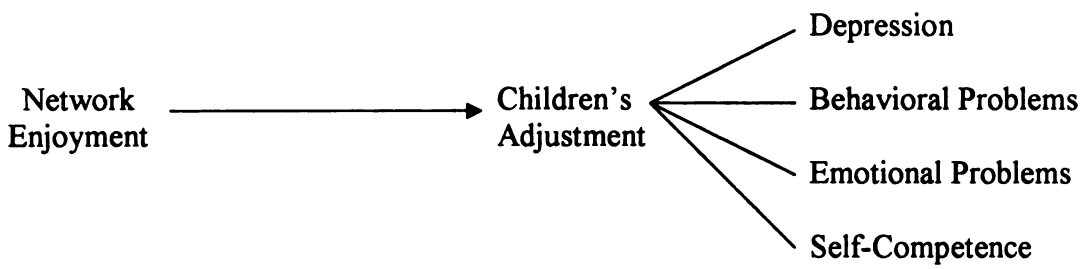
* p<.05 ** p<.01

The results of model 3 did not provide further support for the hypothesis that emotional support would be positively related to children's adjustment. To the contrary, the higher the satisfaction with emotional support, the greater the emotional adjustment problems children in study experienced. Surprisingly, children's depression, behavioral adjustment problems, and perceived self-competence were not significantly related to satisfaction with emotional support.

Relationships between Network Enjoyment and Children's Adjustment

Model 4 regressed the adjustment scores upon the network enjoyment scale scores. This model tested whether network enjoyment was related to children's adjustment (See Figure 5). Variables for this model were also entered in three blocks. In the first block, gender and age were entered as controls. In the second block, scores from the severity of their exposure scale were entered. In the third block, network enjoyment scale was entered.

Figure 5: Relationships Among Network Enjoyment and Children's Adjustment



Network Enjoyment and Depression. This model addressed the extent to which network enjoyment was related to children's depression. Results indicated that this model accounted for about 4% (R^2=.044) of the variance in depression. Beta was -.13, indicating a negative direction of influence with one standard deviation decrease in network enjoyment scores associated with -.13 standard deviation decrease in depression scores. The R^2 change associated with the inclusion of network enjoyment subscale was .02, indicating no significant change (see Table 17). After accounting for the control variables, network enjoyment did not explain additional variance in depression.

Table 17: Hierarchical Regression of Depression on Network Enjoyment (N=152)

	Standardized Beta at Block of Entry	Full Model Standardized Beta	t	R^2 Change
Block 1: Controls				
Gender	- .046	- .057	- 0.579	
Age	- .149	- .146	- 1.864	0.026
Block 2: Control				
Severity of exposure	.021	.018	0.267	0.000
Block 3: Network Enjoyment	- .133	- .133	- 1.675	0.018
Total R^2				0.044
Total F(4,152)				1.746

* p<.05 ** p<.01

Network Enjoyment and Behavioral Adjustment Problems. This model addressed the extent to which network enjoyment was related to children's behavioral adjustment problems. Results indicated that this model accounted for about 7% (R^2=.067) of the variance in behavioral adjustment problems. Beta was -.14, indicating a negative direction of influence with one standard deviation increase in network enjoyment associated with -.14 standard deviation decrease in behavioral adjustment problems. The R^2 change associated with the inclusion of network enjoyment was .02, indicating a marginal significant change (see Table 18). After accounting for the control variables, network enjoyment explained additional 2% of the variance in children's behavioral adjustment problems.

Table 18: Hierarchical Regression of Behavioral Adjustment Problems on Network Enjoyment (N=152)

	Standardized Beta at Block of Entry	Full Model Standardized Beta	t	R^2 Change
Block 1: Controls				
Gender	.087	.077	1.081	
Age	- .141	- .135	- 1.758	0.025
Block 2: Control				
Severity of exposure	.148	.145	1.875	0.022
Block 3:				
Network Enjoyment	- .143	- .143	- 1.821	0.020[t]
Total R^2				0.067
Total F(4,152)				2.728*

[t]<.10 * p<.05 ** p<.01

Network Enjoyment and Emotional Adjustment Problems. This model addressed the extent to which network enjoyment was related to children's emotional adjustment problems. Results indicated that this model accounted for about 3% (R^2=.025) of the variance in emotional adjustment problems. Beta was -.06, indicating no significant change. The R^2 change associated with the inclusion of network enjoyment scale was .00, indicating no significant change (see Table 19). After accounting for the control variables, network enjoyment did not explain additional variance in children's emotional adjustment problems.

Table 19: Hierarchical Regression of Emotional Adjustment Problems on Network Enjoyment (N=152)

	Standardized Beta	Full Model Standardized Beta	t	R^2 Change
Block 1: Controls				
Gender	.050	.048	0.618	
Age	.015	.019	0.184	.003
Block 2: Control				
Severity of exposure	.139	.138	1.738	.019
Block 3: Network Enjoyment	- .057	- .057	- 0.705	.003
Total R^2				.025
Total F(4,152)				.990

* $p<.05$ ** $p<.01$

Network Enjoyment and Self-Competence. This model addressed the extent to which network enjoyment was related to children's perceived self-competence. Results indicated that this model accounted for about 8% (R^2=.077) of the variance in perceived self-competence. Beta was .22, indicating a positive direction of influence with one standard deviation increase in network enjoyment associated with .22 standard deviation increase in perceived self-competence. The R^2 change associated with the inclusion of network enjoyment scale was .046, significant at $p<.05$ (see Table 20). After accounting for the control variables, network enjoyment explained an additional 5% of variance in perceived self-competence. Therefore, children with greater network enjoyment reported higher perceived self-competence than children with lower network enjoyment.

Table 20: Hierarchical Regression of Self-Competence on Network Enjoyment (N=93)

	Standardized Beta	Full Model Standardized Beta	t	R^2 Change
Block 1: Controls				
Gender	.144	.153	1.418	
Age	- .052	- .011	- 0.509	0.022
Block 2: Control				
Severity of exposure	.095	.112	0.934	0.009
Block 3:				
Network Enjoyment	.217	.217	2.153	0.046*
Total R^2				0.077
Total F(4,93)				1.948

* $p<.05$ ** $p<.01$

The results of model 4 provided limited support for the hypothesis, indicating some beneficial effects of network enjoyment. It was found that children's network enjoyment was significantly related to perceived self-competence. However, children's depression, behavioral problems, and emotional problems were not significantly related to network enjoyment. The next models were designed to examine whether social connection or social support was the stronger predictor of children's adjustment.

Relationship between Perceived Support and Children's Adjustment, Controlling for Social Connection

Model 5 regressed the adjustment scores upon the social connection and perceived support scales. This model tested whether satisfaction with perceived support was related to children's adjustment, after accounting for social connection. Variables for this model were entered in four blocks, with the social connection scale scores entered third and scores for the satisfaction with perceived support scale entered fourth. Similarly, in order to assess whether social connection was related to children's adjustment after accounting for perceived support, a separate test was conducted in which

the order of entry was changed between the two predictor variables. In this test, perceived support was entered before social connection in block 3 and 4 consecutively.

Results of model 5 are presented in Table 21a and 21b, respectively. The influence of perceived support on children's self-competence remained significant, even after controlling for social connection. Specifically, perceived support explained an additional 7% of variance in children's self-competence. This finding indicated that perceived support was a stronger predictor of children's perceived self-competence than was social connection. In addition, after controlling for social connection, no significant relationship was found between perceived support and children's depression, behavioral problems, or emotional problems.

On the other hand, after controlling for perceived support, social connection continued to have a significant influence on children's depression. Social connection explained an additional 3% of variance in children's depression. This result indicates that social connection was a stronger predictor of children's depression than was perceived support. Furthermore, after controlling for perceived support, no significant relationship was found between social connection and children's behavioral problems, emotional problems, or self-competence.

Although these analyses indicated that social connection and overall support related differently to children's adjustment, additional analyses were conducted to assess whether the subscales emotional support and network enjoyment were stronger predictors of children's adjustment than was social connection. Thus, model 6 and 7, respectively, were tested to elucidate these relationships.

Table 21a: Summary of Hierarchical Regression of Children's Adjustment on Perceived Support, Controlling for Social Connection

Dependent Variable for Each Analysis	Standardized Beta at Block 4	t at Block 4	Total F	Total R^2	R^2 Change at Block 3[1]	R^2 Change at Block 4[2]
Depression	- .045	- .531	1.927	.060	.032*	.002
Behavioral Problems	.002	.022	1.479	.047	.009	.000
Emotional Problems	.132	1.546	1.202	.038	.001	.015
Self-Competence	.272	2.596	1.994	.098	.000	.066*

* $p<.05$ ** $p<.01$

[1] R^2 change in this column is associated with the block of entry at which social connection was entered.

[2] R^2 change in this column is associated with the final block of entry at which perceived support was entered.

Table 21b: Summary of Hierarchical Regression of Children's Adjustment on Social Connection, Controlling for Perceived Support

Dependent Variable for Each Analysis	Standardized Beta at Block 4	t at Final Block	Total F	Total R^2	R^2 Change at Block 3[1]	R^2 Change at Block 4[2]
Depression	- .173	- 2.041	1.927	.060	.008	.026*
Behavioral Problems	.007	0.084	1.479	.047	.000	.000
Emotional Problems	- .005	- 0.061	1.202	.038	.016	.000
Self-Competence	- .030	- 0.298	1.994	.098	.066*	.001

* $p<.05$ ** $p<.01$

[1] R^2 change in this column is associated with the block of entry at which perceived support was entered.
[2] R^2 change in this column is associated with the final block of entry at which social connection was entered.

Relationship between Emotional Support and Children's Adjustment, Controlling for Social Connection

Model 6 regressed the adjustment scores upon the social connection and emotional support scale. This model tested whether satisfaction with emotional support was related to children's adjustment, after accounting for social connection. Variables for this model were entered in four blocks, with the social connection scale scores entered third and scores for the emotional support scale entered fourth. In addition, in order to assess whether social connection was related to children's adjustment after controlling for emotional support, a separate test was conducted in which the order of entry was changed between the two predictor variables. In this test, emotional support was entered before social connection in block 3 and 4 consecutively.

Results of model 6 are presented in Table 22a and 22b, respectively. After controlling for social connection, the influence of emotional support on both children's emotional adjustment problems and self-competence remained significant. Emotional support explained an additional 5% of variance in children's emotional adjustment problems. Similarly, emotional support explained an additional 4% of variance in children's self-competence. These results indicated that emotional support was a stronger predictor of children's emotional adjustment problems and self-competence than was social connection. No significant relationship was found between social connection and children's depression or behavioral problems, after controlling for emotional support.

After controlling for emotional support, on the other hand, social connection explained an additional 3% of variance in children's depression. This result shows that social connection was a stronger predictor of children's depression than was emotional support. No significant relationship was found between social connection and children's behavioral problems, emotional problems, or self-competence, after controlling for emotional support.

Table 22a: Summary of Hierarchical Regression of Children's Adjustment on Emotional Support, Controlling for Social Connection

Dependent Variable for Each Analysis	Standardized Beta at Block 4	t at Block 4	Total F	Total R^2	R^2 Change at Block 3[1]	R^2 Change at Block 4[2]
Depression	.004	0.045	1.868	.058	.032*	.000
Behavioral Problems	.102	1.207	1.784	.056	.000	.009
Emotional Problems	.227	2.695	2.199	.068	.001	.045**
Self-Competence	.219	2.057	1.475	.074	.000	.043*

* $p<.05$ ** $p<.01$

[1] R^2 change in this column is associated with the block of entry at which social connection was entered.

[2] R^2 change in this column is associated with the final block of entry at which emotional support was entered.

Table 22b: Summary of Hierarchical Regression of Children's Adjustment on Social Connection, Controlling for Emotional Support

Dependent Variable for Each Analysis	Standardized Beta at Block 4	t at Block 4	Total F	Total R^2	R^2 Change at Block 3[1]	R^2 Change at Block 4[2]
Depression	- .186	- 2.206	1.868	.058	.002	.030*
Behavioral Problems	- .017	- 0.205	1.784	.056	.009	.000
Emotional Problems	- .025	- 0.299	2.199	.068	.045**	.001
Self-Competence	- .017	- 0.170	1.475	.074	.043*	.000

* $p<.05$ ** $p<.01$

[1] R^2 change in this column is associated with the block of entry at which emotional support was entered.
[2] R^2 change in this column is associated with the final block of entry at which social connection was entered.

Relationship between Network Enjoyment and Children's Adjustment, Controlling for Social Connection

Model 7 regressed the adjustment scores upon the social connection and network enjoyment scales. This model tested whether network enjoyment was related to children's adjustment, after accounting for social connection. Variables for this model were entered in four blocks, with the social connection scale scores entered third and scores for the network enjoyment scale entered fourth. Similarly, in order to assess whether social connection was related to children's adjustment after controlling for network enjoyment, a separate test was conducted in which the order of entry was changed between the two predictor variables. In this test, network enjoyment was entered before social connection in block 3 and 4 consecutively.

Results of model 7 are presented in Table 23a and 23b, respectively. After controlling for social connection, the influence of network enjoyment on children's self-competence remained significant. Network enjoyment explained an additional 5% of variance in children's self-competence. This result indicated that network enjoyment was a stronger predictor of children's self-competence than was social connection. Additionally, after controlling for social connection, network enjoyment was found to have a marginally significant influence on children's behavioral adjustment problems. Network enjoyment explained an additional 2% (.022) of variance in children's behavioral adjustment problems. These results indicated that network enjoyment was a stronger predictor of children's behavioral adjustment problems than was social connection. On the other hand, after controlling for network enjoyment, social connection had a marginally significant influence on children's depression. Social connection explained an additional 2% of variance in children's depression. This result shows that social connection was a stronger predictor of children's depression than was network enjoyment.

Table 23a: Summary of Hierarchical Regression of Children's Adjustment on Network Enjoyment, Controlling for Social Connection

Dependent Variables for Each Analysis	Standardized Beta at Block 4	t at Block 4	Total F	Total R^2	R^2 Change at Block 3[1]	R^2 Change at Block 4[2]
Depression	- .101	- 1.247	2.198	.068	.032*	.010
Behavioral Problems	- .151	- 1.877	2.217	.068	.000	.022[t]
Emotional Problems	- .066	- 0.796	.842	.027	.001	.004
Self-Competence	.218	2.135	1.543	.077	.000	.046*

[t]<.10 * p<.05 ** p<.01

[1] R^2 change in this column is associated with the block of entry at which social connection was entered.

[2] R^2 change in this column is associated with the final block of entry at which network enjoyment was entered.

Table 23b: Summary of Hierarchical Regression of Children's Adjustment on Social Connection, Controlling for Network Enjoyment

Dependent Variables for Each Analysis	Standardized Beta at Block 4	t at Block 4	Total F	Total R^2	R^2 Change at Block 3[1]	R^2 Change at Block 4[2]
Depression	- .163	- 1.968	2.198	.068	.018	.024[t]
Behavioral Problems	.040	.481	1.217	.068	.020[t]	.001
Emotional Problems	.044	.521	.842	.027	.003	.002
Self-Competence	- .007	- .072	1.543	.077	.046*	.000

[t]<.10 * p<.05 ** p<.01

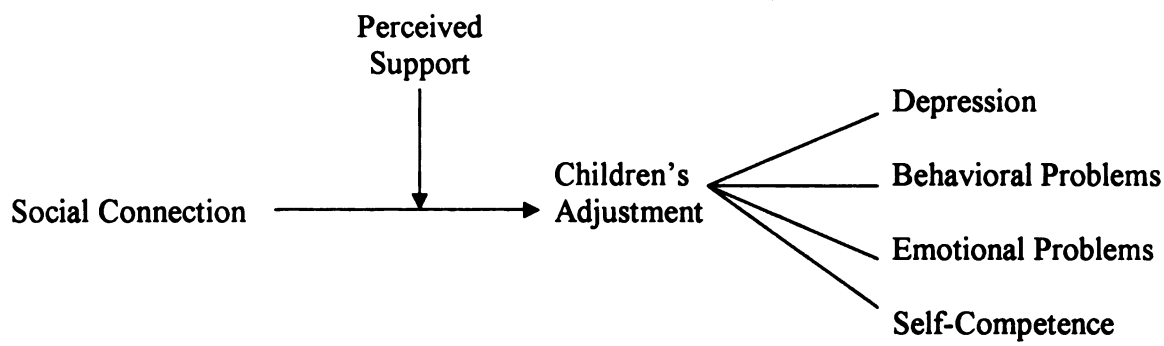
[1] R^2 change in this column is associated with the block of entry at which network enjoyment was entered.
[2] R^2 change in this column is associated with the final block of entry at which social connection was entered.

A number of significant results were derived from models 5, 6, and 7. It was found that social connection contributed independently to children's depression; whereas perceived support was a stronger predictor of children's self-competence. Furthermore, the influence of emotional support on children's emotional problems and self-competence was independent of social connection. Similarly, network enjoyment was more influential to children's self-competence and behavioral adjustment than was social connection. The next logical step was to examine whether the influence of social connection on children's adjustment was moderated by satisfaction with perceived support.

Moderation of Relationships between Social Connection and Children's Adjustment by Perceived Support

Model 8 regressed adjustment scores upon the interaction term between social connection and satisfaction with perceived support subscales. This model addressed whether the effects of social connection on children's adjustment was moderated by satisfaction with perceived support. Variables for this model were entered in five blocks. In the first block, gender and age were entered as control variables. In the second block, severity of exposure was entered. In the third block, social connection was entered. In the fourth block, perceived support was entered. In the fifth block, the interaction term between social connection and perceived support was entered.

Figure 6: Moderation of Relationships between Social Connection and Children's Adjustment by Perceived Support



The results of model 8 did not support the hypothesis that the effects of social connection on children's adjustment would be moderated by satisfaction with perceived support. Findings suggest that the influence of social connection on children's adjustment was not contingent upon their level of perceived support. Similarly, the

influence of perceived support on children's adjustment was not contingent upon the degree of social connection. See Table 24 for a summary of results for analyses of each outcome variable.

Table 24: Summary of Hierarchical Regression of Children's Adjustment on Interaction between Social Connection and Perceived Support

Dependent Variable for Each Analysis	Standardized Beta at Block 5	t at Block 5	Total F	Total R^2	R^2 Change at Block 5
Depression	- .130	- 1.474	1.981	.073	.013
Behavioral Problems	- .108	- 1.218	1.483	.056	.009
Emotional Problems	.007	0.081	0.996	.038	.000
Self-Competence	.054	0.540	1.697	.101	.003

* $p<.05$ ** $p<.01$

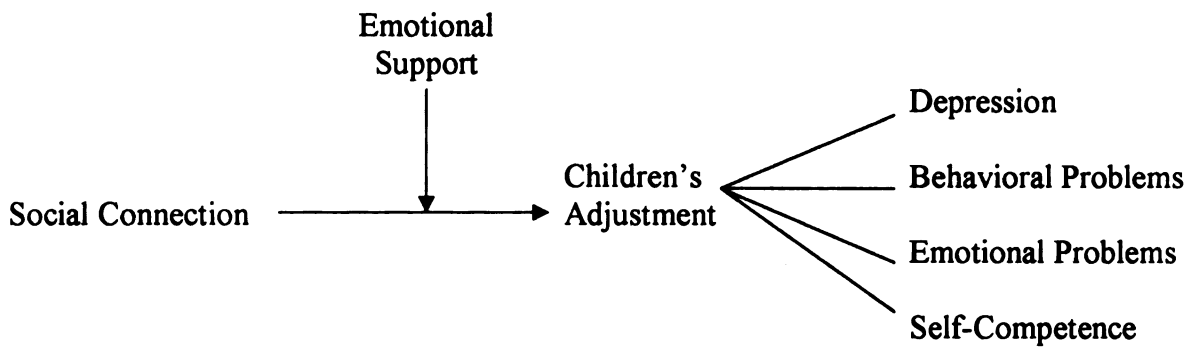
While the influence of perceived support on children's adjustment was not moderated by social connection, further analyses were needed to determine whether the effects of emotional support and network enjoyment on children's adjustment were moderated by social connection. Thus, model 9 and 10, respectively, were tested to elucidate these relationships.

Moderation of Relationships between Social Connection and Children's Adjustment by Emotional Support

Model 9 regressed adjustment scores upon the interaction term between social connection and emotional support subscale. This model addressed whether the effects of

social connection on children's adjustment were moderated by social emotional support (See Figure 7). Variables for this model were entered in five blocks. In the first block, gender and age were entered as control variables. In the second block, severity of exposure was entered. In the third block, social connection was entered. In the fourth block, emotional support was entered. In the fifth block, the interaction term between social connection and emotional support was entered.

Figure 7: Moderation of Relationships between Social Connection and Children's Adjustment by Emotional Support



The results of model 9 did not support the hypothesis that the effects of emotional support on children's adjustment would be moderated by social connection. In other words, the influence of social connection on children's adjustment was not contingent upon their level of emotional support. Similarly, the influence of emotional support on children's adjustment was not contingent upon the degree of social connection. See Table 25 for a summary of results for analyses of each outcome variable.

Table 25: Summary of Hierarchical Regression of Children's Adjustment on Interaction between Social Connection and Emotional Support

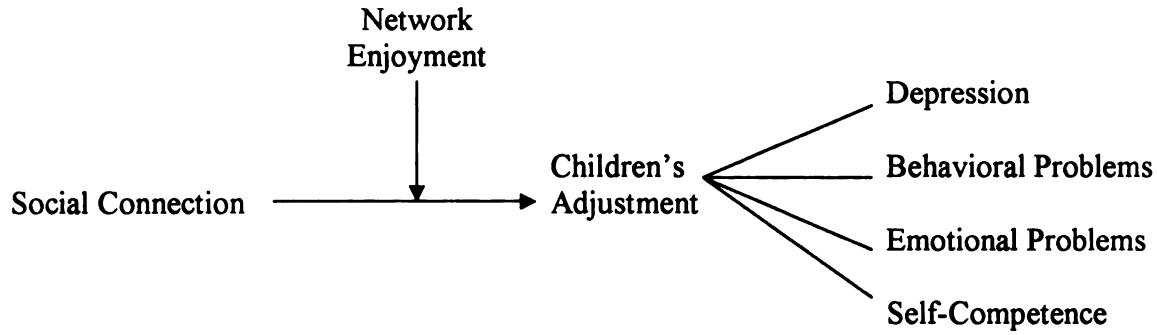
Dependent Variable for Each Analysis	Standardized Beta at Block 5	t at Block 5	Total F	Total R^2	R^2 Change at Block 5
Depression	- .070	- .805	1.661	.062	.004
Behavioral Problems	- .063	- .721	1.569	.059	.003
Emotional Problems	.037	.427	1.853	.069	.001
Self-Competence	.035	.344	1.237	.075	.001

* $p<.05$ ** $p<.01$

Moderation of Relationships Between Social Connection and Children's Adjustment by Network Enjoyment

Model 10 regressed adjustment scores upon the interaction term between social connection and network enjoyment subscales. This model addressed whether the effects of network enjoyment on children's adjustment was moderated by social connection. Variables for this model were entered in five blocks. In the first block, gender and age were entered as control variables. In the second block, severity of exposure was entered. In the third block, social connection was entered. In the fourth block, the network enjoyment subscale was entered. In the fifth block, the interaction term between social connection and network enjoyment was entered.

Figure 8: Moderation of Relationships between Social Connection and Children's Adjustment by Network Enjoyment



A summary of model 10 is presented in Table 26. This model indicated that the influence of social connection on children's behavioral problems, emotional problems, or self-competence was not contingent on levels of network enjoyment. However, a significant interaction between social connection and network enjoyment was found for children's depression (See Table 27). Beta was -.18, and the R^2 change associated with the inclusion of the interaction term between social connection and network enjoyment was .028, significant at $p<.05$ (see Table 26). The overall F value indicates that this model accounted for significant variance in children's depression ($F(6,150)=2.66$, $p<.05$). After accounting for all other variables, the interaction between social connection and network enjoyment explained an additional 3% of variance in children's depression. Additionally, the overall F value indicates that this model accounted for significant variance in children's behavioral adjustment ($F(6,150)=2.42$, $p<.05$). Therefore, this model provided some support for the hypothesis that the influence of social connection on children's children was moderated by network enjoyment.

Table 26: Summary of Hierarchical Regression of Children's Adjustment on Interaction between Social Connection and Network Enjoyment

Dependent Variable for Each Analysis	Standardized Beta at Block 5	t at Block 5	Total F	Total R^2	R^2 Change at Block 5
Depression	- .183	- 2.166	2.658*	.096	.028*
Behavioral Problems	- .154	- 1.813	2.424*	.088	.020
Emotional Problems	- .067	- 0.762	.797	.031	.004
Self-Competence	.087	0.834	1.397	.084	.007

* p<.05 ** p<.01

Table 27: Hierarchical Regression of Children's Depression on Interaction between Social Connection and Network Enjoyment (N=152)

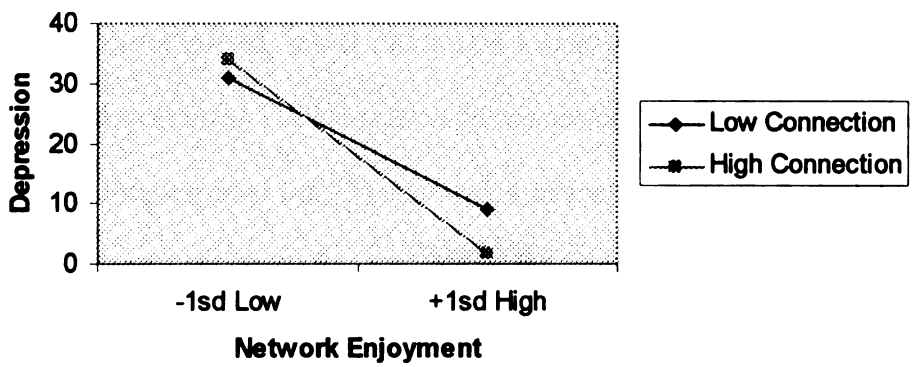
	Standardized Beta at Block of Entry	Full Model Standardized Beta	t	R^2 Change
Block 1: Controls				
Gender	.046	.088	0.579	
Age	- .149	- .122	- 1.864	0.026
Block 2: Control				
Severity of exposure	.021	.028	.267	0.000
Block 3:				
Social connection	- .185	- .192	- 2.271	0.032
Block 4:				
Network enjoyment	- .101	- .161	- 1.247	0.010
Block 5:				
Connection by				
Network enjoyment	- .183	- .183	- 2.166	0.028*
Total R^2				0.096
Total F(6,150)				2.658*

* p<.05 ** p<.01

More specifically, the influence of social connection on children's depression was contingent on levels of network enjoyment. For children with low network enjoyment,

there was no significant difference in levels of depression experienced by those who had fewer and those who had more social connections. In other words, children with low network enjoyment experienced higher levels of depression, regardless of the degree to which they were socially connected to others in their surroundings. However, for children with high network enjoyment, those who had more social connections experienced significantly lower depression than those who had fewer social connections. See Figure 9 for a graphical representation of the moderation of network enjoyment on the relationship between social connection and children's depression.

Figure 9: Moderation of Relationship Between Social Connection and Children's Depression by Network Enjoyment



Discussion

The results of this study suggest important influences of social support on the lives of children exposed to domestic violence. Specifically, the number of social connections children had to significant others, and their perceived support from this network, influenced their adjustment. Interestingly, social connection and perceived support (including emotional support and network enjoyment) related to different areas of children's adjustment, as measured by levels of depression, behavioral adjustment problems, emotional adjustment problems, and self-competence. Moreover, the influence of social connection on children's depression was contingent on the level of enjoyment they derived from this network.

Social Connection and Children's Adjustment

As hypothesized, social connection was negatively associated with levels of children's depression. The more socially connected the children, the lower the level of depression they experienced. The influence of social connection on children's depression remained significant even after controlling for emotional support received from this network. After accounting for the control variables and emotional support, social connection explained an additional 3% of the variance in children's depression. Additionally, after controlling for network enjoyment, the influence of social connection on children's depression remained significant. These results imply that the influence of social connection on children's depression was separate from the influences of emotional support and network enjoyment. In other words, having a variety of people available for support is important in protecting children from experiencing depression, regardless of

their perceptions of the availability of support from others and amount of enjoyment derived from this network.

This result suggests that children's perceptions of the variety of people who are available for support is particularly relevant to their emotional well-being even though support from those people may or may not be available. This finding is particularly important because no study to date has examined this relationship. While it is not clear how social connection relates to levels of children's depression, previous research with adult populations has shown that degrees of social connection are associated with measures of network size and social integration (House, Landis, & Umberson, 1988). Furthermore, it has been shown that a lack of social connection indicates social isolation and alienation, which are terms that have been linked to psychological problems. However, being socially connected is an important predictor to one's psychological sense of community (Barrera, 1986). Although this research neither corroborates nor contradicts past findings, perhaps this feeling of belonging shields children from depression in spite of exposure to domestic violence.

While social connection was found to be significantly related to children's levels of depression, it was not related to children's behavioral or emotional adjustment problems. It was also not predictive of children's overall self-competence. There may be several explanations for this lack of significant findings. Children's social connection was based on self-reports, while information about their behavioral and emotional adjustment problems was based on mothers' reports. Previous research has shown that, when children's reports were correlated with their mothers' reports, only a limited number of significant relationships were found. For example, using children's self-

reports exclusively, Ayers (1991) found that use of active coping strategies corresponded with lower levels of depression and higher self-esteem. On the other hand, use of avoidant coping strategies was associated with higher levels of depression and conduct problems, as well as lower self-esteem. However, when Ayers (1991) compared children's self-reports of coping with parent's reports of children's outcomes, only a few relationships between coping and children's adjustment remained significant. These results suggest that children's experience of stressful events and level of adjustment may be quite different from their mother's perception (Quamma & Greenberg, 1994).

More specifically, several studies have shown that child witnesses and their parents differ widely on reported adjustment problems (Hughes et al., 1989; Sternberg, Lamb, & Dawud-Noursi, 1998). It is possible that mothers have less access to their children's experiences than researchers typically assume. In terms of emotional states, it is often difficult for mothers to report accurately their children's thoughts and feelings (e.g., sadness, depression). Similarly, mothers' reports of their children's behavioral adjustment are confined to the time they spend observing their children and may reflect an interaction between the child and the mother rather than the child's overall adjustment. Moreover, women who are experiencing domestic violence may not judge their children's behaviors with clarity due to their own stressful experiences (Sternberg et al., 1993).

Perceived Support and Children's Adjustment

Although social connection was not predictive of children's self-competence, perceived support was associated. Children with higher perceived support (emotional support and network enjoyment) reported greater self-competence than children with

lower perceived support. That is, those with more helpful and enjoyable support also reported high overall self-competence. Furthermore, the influence of perceived support on children's self-competence remained significant, even after controlling for social connection. After accounting for the control variables and social connection, 7% of the variance in children's self-competence was explained by perceived support received from their social networks. Thus, this result suggests that perceived support was more influential to children's self-competence than was social connection.

Distinguishing between the two aspects of perceived support - emotional support and network enjoyment - further elucidated the influence of perceived support on children's adjustment. Emotional support was related to children's self-competence, remained significant even after controlling for social connection. More specifically, emotional support explained an additional 4% of variance in children's self-competence. Thus, emotional support was a stronger predictor of children's self-competence than was social connection, which indicates that the helpfulness of support was particularly important to the maintenance of self-competence.

Contrary to the study's prediction, emotional support was found to have a positive relationship with emotional adjustment problems for this sample of children. Moreover, the influence of emotional support on children's emotional adjustment problems remained significant, even after controlling for social connection. Emotional support explained an additional 4% of variance in children's emotional problems. Thus, emotional support was related to children's emotional problems, separate from social connection.

The positive relationship between emotional support and children's emotional adjustment problems may be confounded by the extent to which children had experienced upsetting and stressful events. Children who had experienced more negative events within the four months prior to their interviews may have been more likely to seek out support from others in their surroundings. As a result, these children may also be more inclined to report higher satisfaction with emotional support. However, for children who had not experienced such events, questions about the helpfulness of their social networks may have been less relevant to them. Perhaps they may have been more likely to report lower satisfaction with emotional support.

Network enjoyment, a second aspect of perceived support, was also found to be related to children's self-competence. The influence of network enjoyment on children's self-competence remained significant even after controlling for social connection. Network enjoyment explained an additional 5% of the variance in children's self-competence. This result shows that network enjoyment was a stronger predictor of children's self-competence than was social connection.

Additionally, network enjoyment was marginally related to children's behavioral adjustment problems. After controlling for social connection, children's reports of network enjoyment corresponded with mothers' reports of fewer behavioral adjustment problems. Specifically, the greater their network enjoyment, the fewer behavioral adjustment problems they exhibited. These results showed that network enjoyment was a stronger predictor of children's behavioral adjustment problems than was social connection. In other words, children's perceptions of amount of enjoyment derived from their network were beneficial to their behavioral adjustment. This relationship was

separate from their perception of the variety of people with whom they were socially connected. This finding shows that it is important for children to experience enjoyment and positive interactions with others. Perhaps these enjoyable and positive interactions with others helped promote positive behavior in children. Moreover, they can provide ample opportunities for children to model good behavior.

To summarize, perceived support, including emotional support and network enjoyment, was related to children's self-competence. Moreover, emotional support was positively related to children's emotional adjustment problems. In contrast, network enjoyment was negatively associated with children's behavioral adjustment problems. These findings suggest that children were able to differentiate between emotional or helpful support and enjoyable support. In addition, these two aspects of perceived support related to different areas of children's adjustment.

In addition, these findings suggest that children viewed social connection as qualitatively different from perceived support. These aspects of social support were found to influence different areas of children's adjustment. Children's perceptions of their social connectedness may have been important in shielding them from experiencing depression after their exposure to domestic violence. In contrast, their perceived support from significant others in their surroundings was important to their self-image and self-competence. These results may reflect conceptual differences between social connection and perceived support. As Barrera (1986) suggested, although measures of social connection may have identified social relationships important to children, it does not necessarily imply that all such connections provided support. Overall, this research

suggests that, although it is important for children to be socially connected, it is also essential for them to believe that they have both a supportive and enjoyable network.

Social connection and perceived support are two mitigating factors that may enable children to cope with domestic violence. Interestingly, this study demonstrates that neither social connection nor perceived support is decisive by themselves in mitigating negative effects of domestic violence. Rather, results suggest that the variety of supportive others, and the overall perception of being cared for, influenced different aspects of children's adjustment. The remaining question of this study concerns whether social connection interacts with perceived support (including emotional support and network enjoyment) to influence children's adjustment.

Moderation of Relationship Between Social Connection and Children's Adjustment by Network Enjoyment

A major finding in this study pertains to the significant interaction between social connection and network enjoyment. It was found that network enjoyment moderated the relationship between social connection and children's depression. That is, the influence of social connection on children's depression was contingent upon the extent to which children enjoyed their overall network. Children with low network enjoyment experienced significantly higher levels of depression, regardless of the extent to which they were connected to significant others in their environment. However, among children with high network enjoyment, those with more social connections experienced significantly less depression than those with fewer social connections. These findings suggest that children's perceptions of network enjoyment play a more important role in protecting them from experiencing depression than their perceptions of the variety of significant people in their networks.

This result has several implications. First, the findings suggest that children experience social support through enjoyment or the amount of "fun" they derive from their network. Second, perhaps it is more important to enhance children's positive experiences in their interactions with significant others than it is to augment the number of sources for support. Even if a type or source of social support is theoretically good for them, if they do not enjoy the interaction or have a positive experience, this support may not result in an appreciable benefit. If they do not experience a sense of enjoyment, they may even reject the support, and this intervention may result in negative consequences. Third, if more enjoyable interactions enhance well-being, less enjoyable interactions may be detrimental to their well-being. In fact, a negative interaction may impede their adjustment. Fifth, rather than emphasizing providing therapeutic interventions to alter children's characteristics, a more effective approach might involve allocating resources and activities for positive interactions with others in the environment.

Current Research Limitations

Although this research contributes to our understanding of factors which may shield children from the adverse impact of domestic violence, results must be interpreted with caution in light of several limitations. First, the modified version of the Social Support/Cohesion Scale was not necessarily designed to assess the extent to which children were connected to significant others. Although this scale provided important indications of how many categories of people children were connected to, it did not reflect the total number of people in these children's lives. By assigning higher scores to

children with a larger variety of categories of individuals, this study may have overlooked multiple numbers of people within each category who were important to the children. As a result, some children may have been misclassified. For example, a child with three teachers and four best friends would have only gotten a score of two. Although this measure may have underestimated some children's overall network size, this approach of assessing connections captures the intended concept and meaning of social connections. It did not capture the size but did reflect the scope/breadth of social networks. However, further studies are needed to determine the usefulness and validity of this measure in assessing children's social connections.

Second, the majority of the children in this study were low-income. They and their mothers were recruited from local community agencies, providing services to low-income families who had experienced domestic violence. Therefore, findings from this study may not be generalizable to child witnesses from higher socio-economic backgrounds. Similarly, findings from this research may not be generalizable to children who had not been exposed to domestic violence.

Third, this study did not account for whether children in the study had personally experienced abuse, in addition to witnessing domestic violence. Several investigators in the area of children's witnessing of domestic violence have stressed the importance of accounting for differences in the children's experience with abuse (Sullivan et al., 2000; Edleson, 1999; Jouriles et al., 1989). It is because many children who have witnessed domestic violence were themselves victims of abuse. Since child abuse is itself injurious to children's well-being, this presents a significant confound (Cicchetti & Carlson, 1989). The few studies that have accounted for child abuse indicated that there are significant

differences between groups of abused and non-abused witnesses. In particular, those children who also experienced abuse had higher distress levels than children who only witnessed the violence but were not abused (Davis & Carlson, 1987; Fantuzzo et al., 1991; Hughes, 1988; Hughes et al., 1989; Jaffe, Wolfe, et al., 1986b; Jouriles et al., 1989; Pfouts, Schopler & Hanley, 1981). Information about child abuse was not available to the larger study. Therefore, the prevalence of child abuse in this sample of children is not known.

Lastly, findings from this study are based on cross-sectional data; therefore, causal inferences cannot be drawn. Although this study does not reveal cause-effect relationships, it shows significant associations among social connection, perceived support, and children's adjustment. It is important to conduct further research, examining the longitudinal impact of social connection and perceived support over time.

Contributions and Implications of This Research

The current study expanded upon previous work in several ways. First, this study contributed to the sparse literature on children's witnessing of domestic violence. Although domestic violence has been linked to the behavioral and emotional adjustment of children (Jaffe, Wolfe, et al., 1986b; Christopoulos et al., 1987; Fantuzzo et al., 1991; Forsstrom-Cohen & Rosenbaum, 1985; Hershorn & Rosenbaum, 1985; Hughes, 1988; Jouriles et al., 1989; Holden & Ritchie, 1991), there have been few studies on factors that may shield them from damaging effects (Sullivan et al, 2001; Kolbo, 1996). In fact, much of the research to date focuses on factors that adversely affect children's

adjustment after witnessing domestic violence. While searching for the sources or antecedents of negative outcomes has been useful in identifying children who are likely to experience difficulty, it fails to add to our understanding of factors that contribute to children's strengths and resiliency (Rak & Patterson, 1996). In contrast to previous work, this study has sought to identify factors in the children's surroundings that may have enabled them to cope with the abuse they have witnessed against their mothers. In particular, this study found that social connections and perceived support received through children's networks may shield them from negative effects. Furthermore, the current study broadened our focus to consider influences of support from multiple sources or categories of people (parents, sibling, aunts, uncles, cousins, friends, etc.).

Second, the potentially beneficial role social support plays in children's well-being calls for greater efforts to identify protective factors in the surrounding environment to assist children cope with domestic violence. Even though witnessing domestic violence is traumatic for children, they do not adjust to this exposure the same way. This research underscored the importance of natural support systems in assisting child witnesses cope and make sense of their experiences. In assisting child witnesses cope effectively with the abuse they have witnessed against their mothers, it is particularly important to facilitate connections children have with significant people in their surroundings and to convey to them that they are able to turn to various people for emotional support. Additionally, because they seem to experience social support through the amount of "fun" they derive from others, it is also important to provide children with ample opportunities and activities for positive and enjoyable interactions. Hopefully, these types of discoveries from research will provide an impetus for the development and

design of support provisions and community resources to help children cope effectively with domestic violence.

The development of innovative strategies and community-based programs is essential in order to address the needs and diverse responses of children dealing with domestic violence. Although community programs and services (e.g., shelters, advocacy, and counseling) have been created for women who have experienced domestic violence, few support provisions are available for child witnesses. At this time, some community-based agencies, usually through domestic violence shelters, are able to offer group and/or individual therapy and counseling for children who have witnessed domestic violence. Although important, providing therapy or counseling is only useful to a minority of children who seek this type of intervention and to those who experience emotional and behavioral problems of clinical proportions. Considering most children who are affected by domestic violence do not seek formal support and assistance, it becomes particularly important to strengthen their natural support systems in addressing their needs (Dubois et al., 1992). The influence of social support networks may go a long way in protecting children from the potentially damaging effects of domestic violence.

Directions for Future Research

This study has shown the beneficial influence social support may have on children's adjustment to domestic violence. It was found that social connection may shield children from experiencing depression. This finding is promising and unique because no research to date has examined the role of social connection on children's well-being. More research is needed to substantiate and replicate this result. In contrast,

perceived support, including emotional support and network enjoyment, might be beneficial to children's self-competence. It was not clear why emotional support was positively related to children's emotional adjustment problems. One possible explanation is that it may have been confounded by the extent to which children experienced stressful and upsetting events. Another explanation is that this result may have been a statistical aberration. Therefore, it is important to examine the influence of emotional support on children's adjustment over an extended period of time. Moreover, it is important to account for initial difference in the extent of stressful events, in addition to witnessing domestic violence.

Lastly, these current analyses were not conducted according to type of social connection or relationships. It would be informative to examine how different categories of people upon whom children can rely for support might contribute differentially to their adjustment. Several areas of exploration might include the following questions: Does connection with and support from parents differ from connection with and support from a teacher or a peer? Does connection with and support from formal sources (counselors, clinicians) differ from informal sources of connections and support? Are there differences among connections with and support from the family and those outside of the family? Altogether, these findings reflect the need to examine how different sources of support might affect children's well-being and to differentiate diverse aspects of perceived support.

In summary, research has long shown that social support naturally has the potential to modify, or even prevent, negative developmental trajectories of children dealing with adverse life circumstances. This study extends the potentially beneficial

influence of social support to children who had been exposed to domestic violence. Such children seemed to benefit not only from being socially connected to a variety of people in the surroundings but also from having emotionally supportive and enjoyable networks. Given these benefits, social support is increasingly drawing the attention of researchers and service providers in the area of children's witnessing of domestic violence. Although this research represents an initial foray into the study of social support's influence on children exposed to domestic violence, many questions remain concerning its effects on these children. Further research that contributes to the understanding of the complex relationship between children's witnessing of domestic violence and social support will augment the ability of community-based services to intervene in order to prevent or to moderate the adverse impact of children's exposure to domestic violence.

Appendix A

Mother's Report on Children's Witnessing of Domestic Violence

1. There are some things that men might do to annoy or hurt their partners such as ridiculing, criticizing, controlling, or humiliating them. In the last four months, I want you to recall how many times Child's name has seen or heard Assailant's name do any of these things to you.
(SHOW YELLOW CARD)

Never.....	1
ONCE A MONTH OR LESS	2
2 OR 3 TIMES A MONTH	3
ONCE OR TWICE A WEEK	4
3 OR 4 TIMES A WEEK	5
MORE THAN 4 TIMES A WEEK	6
Not Applicable	8

2. Now I would like to ask you questions about whether Child's name might have seen or heard any of the abuse you've experienced. In the last four months, how many times has Child's name seen or heard Assailant's name threaten you? Would you say:
(SHOW PINK CARD)

Never.....	1
ONCE A MONTH OR LESS	2
2 OR 3 TIMES A MONTH	3
ONCE OR TWICE A WEEK	4
3 OR 4 TIMES A WEEK	5
MORE THAN 4 TIMES A WEEK	6
Not Applicable	8

3. In the last four months, how many times has Child's name seen or heard Assailant's name physically harm you, or attempted to harm you?
(SHOW PINK CARD)

Never.....	1
ONCE A MONTH OR LESS	2
2 OR 3 TIMES A MONTH	3
ONCE OR TWICE A WEEK	4
3 OR 4 TIMES A WEEK	5
MORE THAN 4 TIMES A WEEK	6
Not Applicable	8

Appendix B

Eyberg Child Behavior Inventory

Below are a series of phrases that describe children's behavior. Please (1) circle the number describing how often the behavior *currently* occurs with your child, and (2) circle either 'yes' or 'no' to indicate whether the behavior is *currently* a problem.

	How often does this occur with your child?			Is this a problem for you?	
	Never	Sometimes	Always	Yes	No
1. Dawdles in getting dressed	1 2 3 4 5 6 7			Y	N
2. Dawdles or lingers at mealtime	1 2 3 4 5 6 7			Y	N
3. Has poor table manners	1 2 3 4 5 6 7			Y	N
4. Refuses to eat food presented	1 2 3 4 5 6 7			Y	N
5. Refuses to do chores when asked	1 2 3 4 5 6 7			Y	N
6. Slow in getting ready for bed	1 2 3 4 5 6 7			Y	N
7. Refuses to go to bed on time	1 2 3 4 5 6 7			Y	N
8. Does not obey house rules on his/her own	1 2 3 4 5 6 7			Y	N
9. Refuses to obey until threatened with punishment	1 2 3 4 5 6 7			Y	N
10. Acts defiant when told to do something	1 2 3 4 5 6 7			Y	N
11. Argues with parents about rules	1 2 3 4 5 6 7			Y	N
12. Gets angry when doesn't get his/her own way	1 2 3 4 5 6 7			Y	N
13. Has temper tantrums	1 2 3 4 5 6 7			Y	N
14. Sasses adults	1 2 3 4 5 6 7			Y	N
15. Whines	1 2 3 4 5 6 7			Y	N

ECBI Continued...

16. Cries easily.. .... 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

17. Yells or screams .... 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

18. Hits parents . ... 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

19. Destroys toys and other objects ..... 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

20. Is careless with toys and other objects ..... 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

21. Steals .... 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

22. Lies .... 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

23. Teases or provokes other children ..... 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

24. Verbally fights with friends his/her own age .... 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

25. Verbally fights with sisters and brothers .. 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

26. Physically fights with friends his/her own age .... 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

27. Physically fights with sisters and brothers 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

28. Constantly seeks attention ..... 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

29. Interrupts .... 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

30. Is easily distracted .... 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

31. Has short attention span ... . 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

32. Fails to finish tasks or projects ..... 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

33. Has difficulty entertaining himself/ herself alone .... 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

34. Has difficulty concentrating on one thing. 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

35. Is overactive or restless .... 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

36. Wets the bed .... 1 ..... 2 ..... 3 ..... 4 ..... 5 ..... 6 ..... 7 ..... Y ..... N

Appendix C

Achenbach Child Behavior Checklist

	How often does this occur with your child?							Is this a problem for you?	
	Never		Sometimes				Always	Yes	No
1. Clings to adults or too dependent	1	2	3	4	5	6	7	Y	N
2. Complains of loneliness	1	2	3	4	5	6	7	Y	N
3. Fears he/she might think or do something bad	1	2	3	4	5	6	7	Y	N
4. Fears or complains that no one loves him/her.	1	2	3	4	5	6	7	Y	N
5. Feels worthless or inferior	1	2	3	4	5	6	7	Y	N
6. Would rather be alone than with others	1	2	3	4	5	6	7	Y	N
7. Underactive, slow moving, or lacks energy	1	2	3	4	5	6	7	Y	N
8. Unhappy, sad, or depressed	1	2	3	4	5	6	7	Y	N
9. Worried	1	2	3	4	5	6	7	Y	N

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Appendix D

Children Depression Inventory

Instructions: Kids sometimes have different feelings and ideas. This questionnaire lists feelings and ideas in groups. From each group, I would like you to pick one sentence that describes you best for the *PAST TWO WEEKS*. Remember, there are no right or wrong answers. Just pick the sentence that best describes the way you have been recently. (MARK AN "X" IN THE APPROPRIATE BOX, OR ALLOW THE CHILD TO MARK THE BOX IF S/HE WISHES TO DO SO).

Here is a sample question:

___I read books all the time
___I read books once in a while
___I never read books

CDI

Item 1

I am sad once in a while

I am sad many times

I am sad all the time

Item 2

Nothing will ever work out for me

I am not sure if things will work out for Me

Things will work out for me O.K.

Item 3

I do most things O.K.

I do many things wrong

I do everything wrong

Item 4

I have fun in many things

I have fun in some things

Nothing is fun at all

Item 5

I am bad all the time

I am bad many times

I am bad once in a while

Item 6

I think about bad things happening to me once in a while

I worry that bad things will happen to me

I am sure that terrible things will happen to me

Item 7

I hate myself

I do not like myself

I like myself

Item 8

All bad things are my fault

Many bad things are my fault

Bad things are not usually my fault

Item 9

I do not think about killing myself

I think about killing myself but I would not do it

I want to kill myself

Item 10

I feel like crying every day

I feel like crying many days

I feel like crying once in a while

Item 11

Things bother me all the time

Things bother me many times

Things bother me once in a while

Item 12

I like being with people

I do not like being with people many times

I do not want to be with people at all

Item 13

I cannot make up my mind about things

It is hard to make up my mind about things

I make up my mind about things easily

Item 14

I look O.K.

There are some bad things about my looks

I look ugly

Item 15

I have to push myself all the time to do my schoolwork

I have to push myself many times to do my schoolwork

Doing schoolwork is not a big problem

Remember, describe how you have been in the past two weeks....

Item 16

I have trouble sleeping every night

I have trouble sleeping many nights

I sleep pretty good

Item 17

I am tired once in a while

I am tired many days

I am tired all the time

Item 18

Most days I do not feel like eating

Many days I do not feel like eating

I eat pretty good

Item 19

I do not worry about aches and pains

I worry about aches and pains many times

I worry about aches and pains all the time

Item 20

I do not feel alone

I feel alone many times

I feel alone all the time

Item 21

I never have fun at school

I have fun at school only once in a while

I have fun at school many times

Item 22

I have plenty of friends

I have some friends but I wish I had more

I do not have any friends

Item 23

My schoolwork is alright

My school work is not as good as before

I do real bad in subjects I used to be good in

Item 24

I can never be as good as other kids

I can be as good as other kids if I want to

I am just as good as other kids

Item 25

Nobody really loves me

I am not sure if anybody loves me

I am sure that somebody loves me

Item 26

I usually do what I am told

I do not do what I am told most times

I never do what I am told

Item 27

I get along with people

I get into fights many times

I get into fights all the time

Appendix E

Harter's Scale of Perceived Self-Competence

INSTRUCTIONS: This is a questionnaire called "WHAT I AM LIKE." We are interested in finding out what you are like. Remember, there are no right or wrong answers. Since kids are very different from one another, every kid will be putting down something different.

First, let me explain how these questions work. There is a sample question at the top. I'll read it and you follow along with me. (EXAMINER READS SAMPLE QUESTION). This question talks about two kinds of kids, and we want to know which kids are most like you.

1) So, what I want you to decide first is whether *you* are more like the kids on the left side who would rather play outdoors or whether you are more like the kids on the right side who would rather watch T.V.

2) Now, the second thing I want you to think about, now that you have decided which kind of kids are most like you , is to decide whether that is only *SORT OF TRUE FOR YOU*, or *REALLY TRUE FOR YOU*. (WAIT FOR CHILD'S RESPONSES AND MARK AN "X" IN THE APPROPRIATE BOX, OR ALLOW THE CHILD TO MARK THE BOX IF S/HE WISHES TO DO SO).

(ALWAYS READ THROUGH THE QUESTIONS WITH THE CHILD TO ASSURE THAT S/HE UNDERSTANDS THEM, EVEN IF THE CHILD ASKS TO FILL OUT THE FORM ON HER/HIS OWN).

3) O.K. that one was just for practice. Now we have some more sentences which I'm going to read out loud.
(FOR EACH SENTENCE, INTERVIEWER CHECKS ONLY ONE BOX).

What I Am Like

Sample Sentence

Really Like me	Sort of Like me				Really Like me	Sort of Like me
_____	_____	Some kids would rather play outdoors	BUT	Other kids would rather watch TV	_____	_____
HAR1. _____	_____	Some kids feel that they are very *good* at their school work	BUT	Other kids *worry* about whether they can do the work assigned to them.	_____	_____
HAR2. _____	_____	Some kids find it *hard* to make friends	BUT	Other kids find it's pretty *easy* to make friends.	_____	_____
HAR3. _____	_____	Some kids do very *well* at all kinds of sports	BUT	Other kids *don't* feel that they are very good when it comes to sports.	_____	_____

HARTER Continued...

Really Like me	Sort of Like me				Really Like me	Sort of Like me
HAR4.						
_____	_____	Some kids are *happy* with the way they look	**BUT**	Other kids are *not* happy with the way they look	_____	_____
HAR5.						
_____	_____	Some kids are often *unhappy* with themselves	**BUT**	Other kids are pretty *happy* with themselves.	_____	_____
HAR6.						
_____	_____	Some kids feel like they are *just as smart* as other kids their age	**BUT**	Other kids aren't so sure and *wonder*if they are as smart.	_____	_____
HAR7.						
_____	_____	Some kids have *a lot* of friends	**BUT**	Other kids *don't* have a lot of friends.	_____	_____
HAR8.						
_____	_____	Some kids wish they could be a lot better at sports	**BUT**	Other kids feel they are good enough at sports.	_____	_____
HAR9.						
_____	_____	Some kids are *happy* with their height and weight	**BUT**	Other kids wish their height or weight were *different*.	_____	_____
HAR10.						
_____	_____	Some kids *don't* like the way they are living their life	**BUT**	Other kids *do* like the way they are living their life.	_____	_____
HAR11.						
_____	_____	Some kids are pretty *slow* in finishing their school work	**BUT**	Other kids can do their school work *fast*.	_____	_____
HAR12.						
_____	_____	Some kids would like to have a lot more friends	**BUT**	Other kids have as many friends as they want.	_____	_____
HAR13.						
_____	_____	Some kids think they could be good at just about any new sport they haven't tried before	**BUT**	Other kids are afraid they might *not* be good at sports they haven't tried.	_____	_____

HARTER Continued...

Really Like me	Sort of Like me				Really Like me	Sort of Like me
HAR14.						
_____	_____	Some kids wish their body was *different*	**BUT**	Other kids *like* their body the way it is.	_____	_____
HAR15.						
_____	_____	Some kids are *happy* with themselves as a person	**BUT**	Other kids are often *not* happy with themselves.	_____	_____
HAR16.						
_____	_____	Some kids often *forget* what they learn	**BUT**	Other kids can remember things *easily*.	_____	_____
HAR17.						
_____	_____	Some kids are always doing things with *a lot* of kids	**BUT**	Other kids usually do things *by themselves*.	_____	_____
HAR18.						
_____	_____	Some kids feel that they are *better* than others their age at sports.	**BUT**	Other kids *don't* feel they can play as well.	_____	_____
HAR19.						
_____	_____	Some kids wish they looked *different*	**BUT**	Other kids *like* the way they look	_____	_____
HAR20.						
_____	_____	Some kids *like* the kind of *person* they are	**BUT**	Other kids often wish they were someone else.	_____	_____
HAR21.						
_____	_____	Some kids do *very well* at their classwork	**BUT**	Other kids *don't* do very well at their classwork.	_____	_____
HAR22.						
_____	_____	Some kids wish that more kids their age liked them	**BUT**	Other kids feel that most kids their age *do* like them.	_____	_____
HAR23.						
_____	_____	In games and sports some kids usually *watch* instead of play	**BUT**	Other kids usually *play* rather than just watch.	_____	_____
HAR24.						
_____	_____	Some kids wish something about their face or hair looked *different*	**BUT**	Other kids *like* their face and hair the way they are.	_____	_____

HARTER Continued...

Really Like me me	Sort of Like me				Really Like me	Sort of Like
HAR25.		Some kids are very *happy* being the way they are	BUT	Other kids wish they were *different*.		
_____	_____				_____	_____
HAR26.		Some kids have *trouble* figuring out the answers in school	BUT	Other kids almost *always* can figure out the answers.		
_____	_____				_____	_____
HAR27.		Some kids are *popular* with others their age	BUT	Other kids are *not* very popular.		
_____	_____				_____	_____
HAR28.		Some kids *don't* do well at new outside games	BUT	Other kids are *good* at new games right away.		
_____	_____				_____	_____
HAR29.		Some kids think that they are good looking	BUT	Other kids think that they are not very good looking.		
_____	_____				_____	_____
HAR30.		Some kids are not very happy with the way they do a lot of things	BUT	Other kids think the way they do things is *fine*.		
_____	_____				_____	_____

Appendix F

Social Suport/Cohesion Scale

Kids have different people that are important to them. I'm going to ask you about people that are sometimes important to kids. For each one, I'll ask you how much fun it is to be with them. [SHOW YELLOW CARD #2] Then I'll ask you how helpful they are when you're sad or upset. Let's start out with your mother. How much fun is it to be with her? . . .											
ASK EVERYONE ABOUT SS1 AND SS2. ASK SS3 ONLY IF CHILD HAS A FATHER WHO IS DIFFERENT FROM (A)_____. CIRCLE 8 IF THERE IS NO ONE IN THE CATEGORY WHO IS IN THE CHILD'S LIFE (IE, NO SIBLINGS OR NEVER SEES GRANDPARENTS).				*IF YES,* **How much fun is it to be with _____?**				*IF YES,* **How helpful is/are _____ when you're sad or upset?**			
	Important to Child?			**Not at all**	**A little**	**Somewhat**	**A lot**	**Not at all**	**A little**	**Somewhat**	**A lot**
	Yes	**No**	**N.A.**								
SS1) Your mother				1	2	3	4	1	2	3	4
SS2) How about (A)_____ Is she important to you?	1	2	8	1	2	3	4	1	2	3	4
SS3) Your father (If other than (A))? Is he important to you?	1	2	8	1	2	3	4	1	2	3	4
Do you have any _____? Is he/she (Are any of them) important to? IF CHILD HAS MORE THAN ONE, ASK ABOUT THE ONE THAT IS MOST IMPORTANT TO THE CHILD.											
SS4) Grandparents	1	2	8	1	2	3	4	1	2	3	4
SS5) Sisters or brothers	1	2	8	1	2	3	4	1	2	3	4
SS6) Other relatives – adults	1	2	8	1	2	3	4	1	2	3	4
SS7) Other relatives – children	1	2	8	1	2	3	4	1	2	3	4
SS8) A teacher or principal	1	2	8	1	2	3	4	1	2	3	4
SS9) A counselor	1	2	8	1	2	3	4	1	2	3	4
SS10) A best friend	1	2	8	1	2	3	4	1	2	3	4
SS11) Other close friends	1	2	8	1	2	3	4	1	2	3	4
SS12) Kids other than close friends that you spend time with?	1	2	8	1	2	3	4	1	2	3	4
FOR THE LAST TWO ITEMS, INDICATE WHO THE PERSON IS IN RELATION TO CHILD. IF NOT OBVIOUS, INDICATE A (ADULT) OR C (CHILD).]											
SS13) Is there anyone else who lives in your house?_____	1	2	8	1	2	3	4	1	2	3	4
SS14) Is there anyone else that's important to you?_____	1	2	8	1	2	3	4	1	2	3	4

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