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SIBLING EFFECTS IN THE ADJUSTMENT OF CHILDREN EXPOSED TO
DOMESTIC VIOLENCE

by
Nicole L. McCann

A Thesis

Submitted in partial fulfillment of the requirements of the
Master of Arts Degree
of
Applied Psychology
The Graduate School
at
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Approved by _____
Professor

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ABSTRACT

Sibling effects in the adjustment of children
exposed to domestic violence

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March 2001
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Applied Psychology

Many studies discuss how the emotional trauma experienced by children of divorcing parents is buffered by the presence of siblings. The present study examines whether there is a similar buffering sibling effect for child witnesses to domestic violence if there is an older sibling present in the household. This study examined the differences between first born children including only children and younger siblings who have witnessed domestic violence. The Trauma Symptom Checklist and the Child Behavior Checklist were administered to 102 children aged 3-11 whose parent received shelter or outreach counseling at a New Jersey battered women's shelter. Demographic information was obtained through parent and child interviews. The Parenting Stress Index was administered to the child's parent. All measures were administered upon admission to the program and following a six-month intensive treatment program, consisting of individual and group therapy in two primary modalities of drama and art. No significant differences emerged related to birth order on the development of internalizing or externalizing behavior problems. No differences were found upon admission between first born and later born children. Yet, beneficial effects of treatment were found in both

first born as well as younger born children. This indicates that the PALS Project intervention for child witnesses of domestic violence significantly reduces the negative symptoms of witnessing domestic violence for first born as well as later born children. Results are discussed in terms of the absence of any sibling buffering effect.

MINI ABSTRACT

Many studies discuss how the emotional trauma experienced by children of divorcing parents is buffered by the presence of siblings. The present study examines whether there is a similar buffering sibling effect for child witnesses to domestic violence if there is an older sibling present in the household. This study found no significant differences in the development of internalizing or externalizing behavior problems for first born or later born siblings who witness domestic violence. It was found that the intervention developed to reduce the negative symptoms associated with witnessing domestic violence was equally effective for both groups.

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INTRODUCTION

In the early 1980's children began to be labeled as the silent victims of domestic violence (Davies, 1991). Until then, child witnesses of domestic violence went largely unnoticed as a group requiring intervention. Currently, child witnesses of domestic violence are also referred to as the forgotten or unintended victims of domestic violence (Edleson, 1999). Exposure to domestic violence can include: overhearing violent acts, direct involvement due to an attempt intervene and experiencing the aftermath, e.g., bruises, viewing a mother's depression (Fantuzzo & Mohr, 1999). However, before we attempt to address the effects of witnessing domestic violence on children, it is important to address how many children are affected.

It is estimated that between 3.3 million and 10 million children are exposed to domestic violence each year (Carlson, 1984; Carter, Weithorn & Behrman, 1999; Straus, 1991). It is difficult to get an accurate estimate of how many children witness domestic violence each year due to the frequency of cases that go unreported. Henning, Leitenberg, Coffey, Bennett & Jankowski (1997) reported that 1 in 7 young adults recall witnessing at least one act of domestic violence during their childhood. Researchers suggests that in 90 percent of the domestic violence cases, children are in the same or adjoining room (NCH, 1994). Witnessing violence between parents is traumatic as the violence is often frequent and recurring. Straus (1992) found that 1/3 of all American

children have witnessed repetitive acts of domestic violence. The following statement by Frey-Angel (1989) describes the recurring acts of violence:

Child witnesses are the victims of the cycle of violence that controls their life. There is one violent incident after another. Generally the cycle includes reconciliation and feelings of remorse and forgiveness. This is just until the next violent act. The cycle could be slow, two times a year or fast, two times a day. Children are particularly affected and confused. They do not benefit from the reconciliation as the parents do. They are constantly unsure whether daddy is a bad guy or a good guy today. (p. 38).

While the prevalence rates reveal how many children are witnesses to domestic violence, it is important to determine what defines a child as a witness. Research suggests that witnessing domestic violence is a serious form of psychological maltreatment (Peled, 1997). Battered women report that they are able to shield and protect their children from the acts of domestic violence yet 80 percent of their children reported seeing or hearing the acts of domestic violence (McCloskey, Figueredo & Koss, 1995). Fantuzzo & Mohr (1999) reported that children have some type of direct involvement in the abusive incident in 20 percent of the households studied. Further, Fantuzzo & Mohr reviewed the 911 calls in two cities. The results indicated that in 10 percent of domestic violence incidents, the 911 call was placed by the victim's child.

Children who are witnesses of domestic violence are at an increased risk of being physically abused by one or both parents (Suh & Abel, 1990). It has been estimated that in 60 to 75 percent of the families where a woman is battered the children are also battered (Bowker, 1988; Fantuzzo & Mohr, 1999; Osofsky, 1995). Jeffrey, Frisone, DeStefano, Owens & McCann (2000) suggest that the child abuse is sometimes the result of the victim's attempt to protect the child from more extreme abuse from the battering parent. Oftentimes it is the batterer who physically abuses the children (Suh & Abel,

1990). Family size was found to be related to whether the spouse abuser would also be a child abuser (Suh & Abel, 1990). Findings indicated that the more children in the family the greater the likelihood the spousal abuser would also be a child abuser. Walker (1979) concluded:

Children who live with a battering relationship experience the most insidious form of child abuse. Whether or not they are physically abused by either parent is less important that the psychological scars they bear from watching their father beat their mothers. They learn to become part of a dishonest conspiracy of silence. They learn to lie to prevent inappropriate behavior and they learn to suspend fulfillment of their needs rather than risk another confrontation. They expend a lot of energy avoiding problems. They live in a world of make believe. (p. 46)

Children who witness domestic violence are also at an increased risk of being abused.

Being abused could further exacerbate the negative effects found to be related to witnessing domestic violence. It is this researcher's opinion that child witnesses may be unable to keep up with this cycle and it is related to the documented negative effects of witnessing domestic violence.

It is important to examine how domestic violence affects children and the potential protective factors that work to lessen the negative impact. A child witness to domestic violence is at an increased risk for developing a multitude of problems. Little is known regarding the protective factors that buffer the negative effects of witnessing domestic violence. In high conflict families possible protective factors include a close parent child relationship and supportive sibling relationships. The differences between growing up with siblings or as an only child are noted throughout the literature. It is not known whether the status of being an only child or a child with siblings works to increase or decrease the negative effects related to being a child witness of domestic violence.

In an effort to explore the buffering effects of having siblings for child witnesses to domestic violence, this paper examines the linkages between effects of witnessing domestic violence and protective factors that enable children to cope with stressful environments; differences between only children and children with siblings and factors that protect only children and children with siblings in stressful environments. The paper includes a literature review that is divided into six parts. The first part examines the research on the potential negative effects of witnessing interparental violence. Included in this section are the potential behavioral, cognitive, somatic, psychological and long-term effects of witnessing domestic violence as a child. An etiological theory of psychopathology is provided. Also included is an introduction to the PALS Project, a treatment program designed for child witnesses to domestic violence.

The second section will connect the protective factors of living in a highly stressful environment and how they assist only children and children with siblings in their respective homes. Also explored is a theory discussing the interaction of risk and protective factors for child witnesses of domestic violence. Because parenting is a potential buffer for child witnesses, included in this section is a theory of how trauma affects parenting.

The third part reviews the research on only children. This section explores the developmental differences and psychological effects of growing up as an only child. Included in this portion are three theories that provide an explanation for the differences found in only children throughout the literature.

The fourth section of the literature review examines the sibling research. Explored in this section are the benefits and possible detrimental outcomes for children with siblings.

Particularly, the older sibling who may suffer negative consequences from assuming the role of a caretaker. The fifth section will discuss the purpose of the current study. The literature review will conclude with a statement of the hypotheses.

REVIEW OF THE LITERATURE

Research on the Effects of Witnessing Domestic Violence

In order to examine the buffering effect of siblings for children who live in homes where they witness domestic violence, let us first consider the vast number of ways witnessing domestic violence could affect children. Research has found that children as young as 12 months exhibit physiological and psychological reaction when witnessing verbal conflicts between parents (Hughes & Barad, 1983; Jaffe & Suderman, 1985). Further, as conflict begins to escalate towards violence the child's distress becomes more pronounced. Similarly, young children display distress when witnessing their mother in conflict with a confederate experimenter (Cummings, Pellegrini, Notarius & Cummings, 1989). Frequent exposure to interpersonal violence causes children to have increased negative reactions to verbal conflicts (Adamson & Thompson, 1998). Witnessing interparental verbal conflicts alone is a powerful predictor of emotional problems in children (Ayoub, Deutsch & Maraganore, 1999). When witnessing interparental conflict is coupled with witnessing domestic violence it often can result in trauma related extreme distress (Ayoub, Deutsch & Maraganore, 1999). This could be possibly due to a child's experience of the escalating pattern that has led to physical violence in the past.

Child witnesses of domestic violence are at an increased risk for maladjustment when compared to children who do not live with violence (Fantuzzo & Mohr, 1999; Kolbo, Blakely & Engleman, 1996). Witnessing physical attacks toward one's mother is

traumatic for a child. The mother's suffering following an act of domestic violence is part of a child witness' daily routine which may cause the child to depersonalize and blame her for the family's problems (Jaffe, Wolfe & Wilson, 1990). Research reports that initially child witnesses feel sympathy for their battered mother which could change to anger and hostility towards her as they get older (Hilberman & Munson, 1978). It may be that child witnesses need to feel that the mother is deserving of such treatment to cope with their frightening situation. No aspect of the child's development is safe as domestic violence threatens the child's emotional well being and physical health (Fantuzzo & Mohr, 1999). Children who are chronically exposed to acts of domestic violence were found to have disruptions in their development which often resulted in disturbed patterns of cognitive, emotional and behavioral adjustment (Wolfe & Jaffe, 1991).

Psychological Effects of Witnessing Domestic Violence

Children who witness parental violence are at an increased risk of psychological problems (Hughes & Barad, 1983). Child witnesses of domestic violence exhibit high levels of anxiety when compared to children who do not live with violence (Allesi & Hearn, 1984, Hughes, 1988). Their anxiety is often about their family members (Graham-Bermann, 1996). Research suggests that internalizing disorders such as anxiety could occur because the child feels a need to try and protect the battered parent (Kashani & Allen, 1998). Child witnesses displayed more anxiety, depression and trauma symptoms than children who did not witness violence (Hughes, 1988). Preschool age children who witness domestic violence were found to be more irritable, afraid to be alone and appear to be anxious when separated from their mothers (Allesi & Hearn,

1984). Researchers have established that witnessing domestic violence places a child at risk for low self esteem (Hughes, 1998; Suh & Abel, 1990). Similarly, child witnesses report they feel sadder and more unwanted than their peers (Sternberg, Lamb, Greenbaum, Cicchetti, Dawud, Cortes, Krispin & Lorey, 1993). Studies using the Child Behavioral Checklist (Achenbach & Edelbrock, 1983) have indicated that exposure to domestic violence is related to internalized, fearful and inhibited behaviors e.g.; depression, anxiety and poor self esteem (Dolon & Hendricks, 1991; Fantuzzo, DePaola, Lambert, Martino, Anderson & Sutton, 1991; Fantuzzo & Mohr, 1999; Hughes, 1988). Researchers consider child witnesses to be more introverted, compliant, and conflict avoidant which possibly uses a great amount of their energy causing them to never feel relaxed (Frey-Angel, 1989).

Behavioral Effects of Witnessing Domestic Violence

Research suggests that child witnesses are affected behaviorally in 1/3 of violent family situations (Dolon & Hendricks, 1991). Notably, child witnesses have reported that they behave in ways that are likely to get them in trouble (Sternberg, et.al., 1993). Children from homes with domestic violence often exhibit externalizing behavior problems e.g.; conduct problems, aggressive behaviors, and antisocial behaviors (Fantuzzo et.al., 1991; Fantuzzo & Mohr, 1999; Hughes, 1988). Male child witnesses are at an increased risk for developing externalizing behavior problems (Frisone, Jeffrey & Owens, 1999). Straus (1980) stated that child witnesses are taught that violence is an appropriate response and way to resolve conflicts. Researchers have found that aggression is often used as a form of problem solving in adolescent child witnesses (Allesi & Hearn, 1984). Child witnesses are at risk because they may develop a limited

ability to observe effective ways to communicate with others and therefore resort to behaving in violent ways (Suh & Abel, 1990). These findings place males who witness violence towards their mothers at a greater risk to become batterers themselves and girls to become future victims (Davies, 1991).

Cognitive Effects of Witnessing Domestic Violence

Child witnesses are exposed to violent, self-destructive behaviors and negative role models (Peled, 1997). Research suggests that this could cause the child witness to fail to develop the basic sense of trust and security that is the foundation of healthy development (Osofsky, 1995). Child witnesses are more likely to have short attention spans and an inability to control anger making school a difficult adjustment (Dolon & Hendricks, 1991). Similarly, child witnesses frequently reported intellectual and academic problems and difficulty being successful in a school atmosphere (Fantuzzo & Mohr, 1999; Folygon, 1993). It is well established that there is a significant increased risk for child witnesses to have conduct and learning problems when compared to control populations (Fantuzzo & Linguist, 1989; Jaffe & Edleson, 1990; Peled, 1995). It is not surprising that child witnesses would have increased difficulties in a school atmosphere. Fantuzzo & Mohr (1999) reported that child witnesses have difficulty concentrating on school work and have lower scores on intelligence tests than their nonwitness counterparts. Similarly, child witnesses were found to have lower levels of school performance than children from nonviolent homes (Wolfe, Zak, Wilson & Jaffe, 1986). One could conclude that the effects of domestic violence on children rob them of their ability to concentrate and gain a positive school experience.

Further, exposure to domestic violence may influence the development of attitudes that justify the use of violence (Jaffe, Wilson & Wolfe, 1986). Researchers have shown that children who witnessed domestic violence are frequently eager to please and at other times aggressive (Allesi & Hearn, 1984). Notably, child witnesses learn that violence is an acceptable and integral part of intimate relationships (Black & Newman, 2000). Pre-school and elementary aged children may create a social reality in which passive-aggressive behavior is normal (Markward, 1997). Interestingly, researchers have shown that children from violent homes are less able to empathize with others when compared to children from nonviolent homes (Hinchey & Gavalek, 1982; Hughes, 1988). Child witnesses often become unable to identify the needs of other and respond appropriately (Davis, 1988). It has been well established that problem solving skills become impaired due to witnessing interparental violence (Rosenberg, 1987; Suh & Abel, 1990).

Somatic Effects of Witnessing Domestic Violence

Researchers have shown that child witnesses report feeling less healthy than their peers (Sternberg et.al., 1993). Research has found that children from birth to twelve years old who were exposed to domestic violence had more frequent sleep and eating disturbances, bed-wetting and failure to thrive (Sinclair, 1985). Researchers consider other physical problems that may be linked with witnessing domestic violence include: headaches, insomnia, vomiting and diarrhea (Cambell & Lewandowski, 1997).

Etiology of Psychopathology and Witnessing Domestic Violence

The possibility of a child to develop severe psychopathology is four times more likely in child witnesses than children from nonviolent homes (Davies & Cummings; Grych & Finchman, 1990). Cicchetti (1989) offers a developmental theory of the

possible rationale for the etiology of psychopathology. According to this perspective, children must develop competencies across many domains and progress through critical stages. Cicchetti (1989) states that children must master the challenges of each stage of growth and adaptation to occur. Cicchetti (1989) acknowledges that many factors both ontogenic and environmental influence a child's ability to resolve vital developmental tasks. This model would predict that intense environmental stress, e.g., living in a home with domestic violence, would undermine the resolution of the essential developmental stages. Possibly this is why a disorder that frequently plagues child witnesses is Post Traumatic Stress Disorder (PTSD). PTSD is an anxiety disorder caused by overwhelming traumatic stress (American Psychiatric Association, 1995). Researchers have reported that the majority of child witnesses will experience symptoms of PTSD (Wolfe & Jaffe, 1991; Peled, 1997).

The prevalence of PTSD is high for child witnesses of domestic violence ranging from 45 to 84 percent (Herman, 1992; Saunders, 1994). The risk of developing PTSD after witnessing domestic violence appears to be equal for boys and girls (Kilpatrick, Litt & Williams, 1997). Research states that children exposed to repeated or extreme acts of domestic violence have a higher incidence of PTSD than children from nonviolent homes (Carter, Weithorn & Behrman, 1999; Pynoos & Nader, 1988). Kilpatrick et.al. (1997) reported that out of 31 child witnesses in their sample, 30 qualified for a diagnosis of PTSD and scored between the moderate to severe range. Out of the 27 children from nonviolent homes they studied, not one qualified for a PTSD diagnosis. Researchers have found that younger children often attribute themselves as the cause of the interparental violence (Black & Newman, 2000). Consequently, guilt and self blame are

linked to a severe diagnosis of PTSD (Kilpatrick et.al., 1997). The high incidence rate of PTSD in child witnesses of domestic violence could account for the behavioral, adjustment and emotion problems documented throughout the literature (Kilpatrick et.al., 1997).

Long-term Effects of Witnessing Domestic Violence

The effects of witnessing domestic violence on adolescents is an area where further research is needed. Hall & Lynch (1998) found that adolescents who witnessed domestic violence were more likely to have histories of violence, bullying, ADHD, dropping out of school or being expelled than adolescents who lived in nonviolent homes. This is consistent with the literature that documented school related problems. Researchers have noted that adolescents who witness domestic violence have significantly higher rates of running away from home when compared to adolescents from nonviolent homes (Carlson, 1990; Sinclair, 1985). Further it has been found that girls are more likely to become pregnant than their peers who have not been exposed to parental violence (Sinclair, 1985). Fergusson & Horwood (1998); Sinclair (1985) found a significant relationship between witnessing domestic violence and mental health problems, substance abuse and crimes in a study of 18 year olds. Notably, adolescent witnesses report having more homicidal and suicidal ideations than their non-witnessing peers (Sinclair, 1985).

The effects of witnessing domestic violence on children can be serious and affect them throughout their lifespan. Therefore, the effects of witnessing domestic violence on children make them a group in need of comprehensive treatment (Jeffrey, Frisone, Owens & Monahan, 1999). However, current programs designed to treat child witnesses only

reach a small percentage of the children who are affected (Carter et.al., 1999). Possibly due to the overwhelming amount of literature, the treatment needs of child witnesses to domestic violence have been brought to the forefront. Two-thirds out of 1,200 battered women shelters currently provide child treatment services as compared to 3 out of 325 in 1981 (Peled, 1997).

One example of a groundbreaking intensive and comprehensive treatment program for child witnesses to domestic violence is the PALS Project. PALS is an acronym that stands for “Peace: A Learned Solution”. The PALS Project was designed to be an intensive intervention program for child witnesses of domestic violence, ages 3 to 11. This program has been funded by the New Jersey Division of Youth and Family Services and is administered by the Catholic Charities, Diocese of Trenton. Children in the PALS Project have mothers who have sought services from Providence House, a battered women’s shelter in Burlington County, New Jersey. The multifaceted intervention for child witnesses includes individual and group therapy, daycare, after-school programs, tutoring and case management services. Since the PALS inception in 1998, over 70 mother and their children have received treatment. Child witnesses who received treatment through the PALS Project were assessed for the current study. In 1999 PALS mothers reported that 40% of their children had good relationships with their siblings and 8% of the mothers described the relationship as fair (Jeffrey, Frisone & Owens, 1999). In this study, the PALS sample was used to investigate the differences of the effects of domestic violence on only children and children with siblings.

Research on Protective Factors

In order to examine the protective factors, let us consider the theoretical framework which has motivated the current research. The effects of witnessing domestic violence varies from child to child. Researchers have reported that there are a small number of child witnesses who exhibit few negative symptoms and have higher levels of social competence than children who were never exposed to domestic violence (Jaffe et.al., 1990). Suh & Abel (1990) found that the level of the child's functioning is related to the severity of violence and the mother's adjustment to the violence. In contrast, Kilpatrick & Williams (1997) report that witnessing domestic violence has the potential to negatively impact a child regardless of the intensity or frequency of the abuse. Research is needed to examine why some children appear to be resistant to the effects of witnessing domestic violence and to examine potential protective factors (O'Keefe, 1994; Osofsky, 1995).

Risk factors are those that are directly related to a disorder whereas protective factors are those that work to buffer the effects of the risk variable (Davies & Cummings, 1994). Davies & Cummings (1994) have identified three potential risk factors for child witnesses of domestic violence. First, witnessing the escalating aggression that leads to physical violence can be traumatic for children. Secondly, witnessing ongoing parental conflict undermines a child's emotional well-being and ability to meet the demands of life. Thirdly, child witnesses of domestic violence could suffer from persistent levels of arousal, exhibiting high levels of emotional, physiological and behavioral reactivity whenever discord surfaces (Davies & Cummings, 1994).

Pepler, Catallo & Moore (2000) propose that one should consider all possible influences on a child's life such as parents, siblings, friends, school and community environments. Relevant to this research let us consider the influences of parental and sibling relationships. Unfortunately for child witnesses of domestic violence, the largest influence on their lives is their mother, father and the marital relationship. Research has recognized that conflict between parents is the strongest predictor of behavior problems in children (Emery, 1989). Supporting Emery's findings, research has shown that children of intact families with high levels of interparental conflict are more emotionally distressed than children in divorced families (Amato, 1993). The second influence is the child's relationship with their mother. Due to the effects of living with domestic violence it may be difficult for a mother to provide a child with the emotional support and nurturing the child needs to develop appropriately (Pepler, et. al., 2000). Thirdly, the father's relationship with the child needs to be considered. Pepler, et al. (2000) suggest that a child's relationship with an abusive father is often severed. Sibling relationships are the fourth influence in a child's life. Pepler et. al. (2000) state that "the sibling relationship is very salient in children's lives". The sibling relationship could be a protective factor in cases where the relationship buffers the impact of parental fighting (Jenkins & Smith, 1991). Conversely, it could act as a risk factor as some sibling relationships increase aggressive behavior problems (Patterson, 1986).

Protective factors are attributes of the child and the child's environment that act as buffers between the child and stressful situations (DeHaan & MacDermid, 1998). To date there has been little research examining the factors that enable child witnesses of domestic violence to cope with their stressful environments (Edleson, 1999). Kashani &

Allan (1998) reported that one protective factor for child witnesses is having individuals in their environments that they can turn to for emotional support. Researchers consider the most significant protective factor is having and maintaining a strong and positive relationship with a competent and caring adult (Carter et.al., 1999).

A positive parental relationship was found to be significantly related to psychological adjustment and well being in child witnesses (DeHaan & MacDermid, 1998; Emery, 1982). Similarly, child witnesses who have developed a secure attachment with either parent and are able to maintain it despite the violence, may escape the negative effects of witnessing domestic violence (Neighbors, Forehand & McVicar, 1993). The child witness' relationship with his/her mother is a key variable that acts as a buffer against developing an internalizing or externalizing behavior problem (Jenkins & Smith, 1990; O'Keefe, 1994). Researchers have found that other protective factors that buffer the effects of witnessing domestic violence on children include: characteristics of a child's personality and involvement and close relationships with other members of the family (Carter et.al., 1999). Further, having people to discuss the family secret aids the child's ability to cope with the fear, anger and confusion that many child witnesses experience (Peled, 1997).

In order to determine the relevancy of a close mother child relationship as a protective factor, let us consider the theoretical framework of trauma and parenting for battered women. Belsky (1984) provides an ecological model of parenting where parenting is described as existing in a safeguarded system where deficits in one area can be buffered by strengths in another. Belsky provides three factors of parenting that could lead to risk or protection depending on the individual's influential factors. These factors

include contextual variables, e.g., work, social support, marital relationship, ontogenic variables, e.g., parent's developmental history, parent's personality and child characteristics. Levendosky & Graham-Bermann (2000) find that Belsky's model is helpful but argue that a fourth factor that influences parenting for victims of domestic violence is the traumatic effects of violence on a woman's mental health.

Research is not conclusive as to how domestic violence affects a woman's ability to parent. McCloskey, Figueredo & Koss (1995) found that violent families had lower levels of maternal warmth when compared to non-violent families. Other research has found that women victims of domestic violence reported that they had higher levels of parenting stress when compared to comparable, but nonviolent families (Holden & Ritchie, 1991). Conversely, Holden & Ritchie (1991) measured physical affection, punishment, emotional availability and negative discipline strategies. They found no differences between the battered women on these variables of parenting when compared to mothers who are not victims of domestic violence.

Levendosky & Graham-Bermann (2000) offer two possible parenting scenarios for victims of domestic violence. It is possible that the violence will have no effect on the mother's parenting behaviors. In this case the mother is able to increase her attention and remain consistent in parenting, despite the violence in her life (Levendosky & Graham-Bermann, 2000). Secondly, a mother may have intermittent states of hyperarousal and numbing due to the trauma she experienced. This type of parenting behavior would find the mother being emotionally inaccessible, depressed, angry with periods of warm and nurturing behavior. It appears that experiencing domestic violence is likely to influence parenting behaviors. This could be problematic for the only child who witnesses

domestic violence and needs a close, warm and loving relationship with his or her mother in order to buffer the negative effects.

Protective factors that buffer children in high conflict families include sibling relationships. Widmer & Weiss (2000) found that having an older sibling can shield younger siblings from the harmful effects of their environment because the relationship positively influences development. Possibly, the presence of an older sibling is a protective factor for children under stress and children with this support have fewer emotional and behavioral problems (Jenkins & Smith, 1990; Sandler, 1980). One could conclude that parental and sibling relationships could both serve as risk and protective factors depending on the individual child and family characteristics.

Research on Only Children

In 1998 the US Census Bureau reported that 17.3% of families had only one child. Historically, only children were believed to be “handicapped” due to the lack of a sibling relationship (Falbo & Polit, 1986). Gallup polls in 1972 revealed that nationwide 78% of white Americans believed that only children were disadvantaged (Blake, 1974). Notably, researchers have established that only children are not disadvantaged despite earlier beliefs (Blake, 1989; Dawson, 1991; Ernst & Angst, 1983). Yet there remains a widespread belief that having a sibling is an essential part of development (Rosenberg & Hyde, 1993). This belief further intensifies the typecast that only children experience negative consequences due to their family status (Rosenberg & Hyde, 1993). Notably, families in China are of great interest to only child researchers as 70% of the families in China are only child families (Jiao, Ji & Jing, 1986). China has a one child policy that was placed into effect in attempt to lower the birth rate (Richards & Goodman, 1996).

An explanation has been categorized for the differences found in only children by Falbo & Polit (1986). The first possible classification is the deprivation theory. The premise of this theory is because there is an absence of siblings, only children do not experience critical learning experiences, that a child with siblings does (Falbo & Polit, 1986). This theory views only children as disadvantaged and is often used to explain the maladjustment found in only children (Falbo & Polit, 1986). In contrast, research has found that only children are not disadvantaged at all. Falbo & Polit (1986) posit that growing up without siblings has many advantages for only children.

The second theory views only children as unique because they never need to adjust to the birth of a new sibling (Falbo & Polit, 1986). Further, only children receive undivided attention from parents throughout their lifespan making them unique from all children with siblings. Conversely, research revealed that only children are not unique but similar to firstborns and children with one sibling (Falbo & Polit, 1986). Similarly, only children were compared with children with only one sibling (Richards & Goodman, 1996) and revealed that the similarities between these two groups far outweighed the differences. This theory has been used to explain why differences, both positive and negative have been found in the research on only children (Falbo & Polit, 1986).

The last theory operates on the premise that only children are different due to the nature of the parent child relationship (Falbo & Polit, 1986). This theory has been used to explain that differences found in only children are due to their relationship and attachment to their parents (Falbo & Polit, 1986). Falbo & Polit (1986) found that only children had more positive relationships with their parents and positive developmental outcomes than children with siblings. In highly conflictual families, fathers are

frequently withdrawn from their children than fathers of families with limited conflict (Grych, Jouriles, Swank, McDonald & Norwood, 2000).

Theories of only children and their possible developmental outcomes fall into three possible categories. Rosenberg & Hyde (1993) suggest there are three classifications for only children. An only child could be well adjusted with no marked internalizing or externalizing behavior problems. Secondly, an only child may be impulsive and acting out. Lastly, an only child could be quite similar and share qualities found in first born children. Similarly, these three classification have all been supported throughout the only child literature as possible outcomes (Rosenberg & Hyde, 1993).

There are many possible positive effects of being an only child noted throughout the literature. Researchers found that only children scored significantly higher than children with siblings on achievement, motivation and self-esteem (Falbo & Polit, 1986). Consistent with these findings, adult only children were found to reach higher educational levels and be employed in more prestigious occupations (Falbo & Polit, 1986). Falbo (1984) reported that only children are more socially independent and mature at a faster rate than children with siblings. Research has found that only children are at an advantage in cognitive, social and emotional areas due to their status (Rosenberg & Hyde, 1993). Miller (1990) found that only children were more likely to have positive outcomes in response to crisis. Other research suggests that only children are more autonomous, have increased initiative, self-esteem and adjustment levels (Miller, 1990).

Only children were found to have greater than expected incidences of mental health problems (Howe & Madgett, 1975). Yet, the rates of psychiatric disorders were fairly equal when comparing only children with siblings (Richards & Goodman, 1996).

Possibly because parents of only children were more likely to seek psychological assistance for their child (Richards & Goodman, 1996). There were no differences found in the rates of disorders because frequently only children did not meet the criteria for any diagnosis (Richards & Goodman, 1996).

One of the benefits of being an only child is the possible buffering effect of having a close relationship with one or both parents. Research has found that only children receive more parental attention and involvement than do children with siblings (Falbo & Cooper, 1980). In support of these findings, researchers reported that only children scored significantly higher on measures of positive parental relations than children with siblings (Falbo & Polit, 1987). Researchers suggest that only children are at a disadvantage because they lack the positive developmental influence of a sibling relationship (Falbo, 1992). Conversely, Riggio (1999); Falbo & Polit (1986) report that any deficits from growing up an only child is compensated by a closer relationship the only child has with their parents. These findings are further supported as only children have more one on one interactions with their parents than children with siblings (Falbo & Polit, 1986). Similarly, only children are the sole focus of their parents attention which may result in an extremely close attachment status (McGoldrick & Gerson, 1985).

A close relationship with one or both parents may not provide a buffering effect but have a detrimental impact on children in homes with interparental violence. Researchers have reported that only children who witness domestic violence are more prone to the development of internalizing and emotional disorders due to a more intense relationship with their parents (Jenson, Bloedau, Degroot, Ussery & Davis, 1990). Similarly, Bank & Kahn (1982) stated "An only child absorbs parental pathology and, lacking a sibling, can

become increasingly helpless- trapped in an endless process of trying to heal the parents' problems directly " (p. 128). Research posits that an only child may respond to the need of the mother and consequently assume an irrational role with the child acting as a caretaker of the parent (Bayrakal & Kope, 1990).

Because an only child is so close to his or her parents, conflict between them can cause the child great pain due to their attempt to remain loyal to both parents (Bank & Kahn, 1982). Conversely, Neighbors et.al. (1993) reported that a child's relationship with his or her mother coupled with good self-esteem may buffer the effects of ongoing interparental conflict. Researchers have considered that only children are more likely to develop internalizing and emotional disorders due to their more intense relationships with parents (Jensen et.al., 1990).

Research also falls into the category that there are no differences in only children because of their lack of siblings. Polit & Falbo (1987) reported that only children did not differ from children with siblings on measures of personality, extroversion, neuroticism, stability, flexibility, generosity and cooperativeness. The only significant differences found were that only children had greater achievement motivation, self esteem and relations with parents. Falbo & Polit (1986) found no differences between only children and children with siblings on measures of autonomy, locus of control and emotional stability.

Lastly, there are possible negative effects of growing up as an only child documented throughout the research. Riggio's study (1999) suggested that only children were self-centered, unlikable, selfish, lonely and maladjusted. Researchers reported that because only children do not have the benefit of sibling relationships they have lower amounts of

social confidence, behavior control and coping resources (Pilkington, White & Matheny, 1997). Only children have been found to have more behavioral problems and disruptions in personality development (Jiao, et. al., 1986). Riggio (1999) reported that only children differed from children with siblings on measures of neuroticism which reflects a higher degree of emotional instability. Other researchers have failed to replicate Riggio's findings as Polit & Falbo (1987) found no differences between only children and children with siblings on neuroticism. Research has found that only children are more likely to be egocentric whereas siblings are more likely to be cooperative, persistent and make friends easily (Jiao, et. al., 1986).

Research remains unclear as to the possible positive and negative outcomes for only children. It appears that only children may be compensated for the lack of siblings by having close and frequent interactions with their parents. In a domestic violence environment due to the abuse, the child's mother is often unavailable. Whereas, sibling relationships may compensate for the lack of close parent-child relationships characteristic of one child families. One difference for child witnesses of domestic violence is that only children are unable to go to a sibling for support during high conflict times. Therefore this research predicted that only children would have a more difficult time adjusting to witnessing domestic violence.

No comparisons between only children and children with siblings could be made due to a limited number of only children in this study (n=5). This is not surprising given that the US Census Bureau reported that only 17.3% of families are one child families (US Census Bureau, 1998). In light of the current study's sample size (n=102) the percentage of one child families is just slightly lower than the US Census findings.

Research on the Sibling Relationship

Researchers have found that family relationships are important for appropriate development of interpersonal skills, expectations about relationships and relating with others (Stocker & Youngblade, 1999). Therefore, a sibling relationship becomes very important for children. It is possible that relationships with siblings allow children to acquire social and cognitive skills that are necessary for a healthy social development (Furman & Buhrmester, 1985). However, one must examine the possible positive and negative outcomes for sibling relationships.

Research has distinguished three recurring and predictable conditions that foster close sibling bonds: access to siblings, need for meaningful personal identity and insufficient parental influence (Bank & Kahn, 1982). Similarly, Brody & Stoneman (1996) suggest that if a child is able to have a positive relationship with one parent they are more likely to have positive and close relationships with their siblings. However, in a domestic violence home, the discord between the parents could cause a mother or father to be unable to give the nurturing and support a child needs. According to Brody & Stoneman (1996) this could impact the sibling relationship. Further, conflict between parents has also been associated with negative sibling relationships (Dunn, 2000).

Siblings that experience extreme levels of stress and ongoing parental discord were found to be more likely to develop intense and supportive sibling relationships (Bank, Patterson & Reid, 1996). Researchers have found that even when siblings are not close, a close and protective relationship often develops when children are in adverse family circumstances or when parents are not reliable (Banks & Kahn, 1982). Consistent with these findings is that negative life events and adversity have been found to increase the

closeness of siblings relationships (Dunn, Slomkowski & Beardsall, 1994). This appears to be important for child witnesses of domestic violence whose parents may be emotionally and physically unavailable.

Research suggests that siblings respond to witnessing domestic violence in their own unique ways (VonSteen, 1997). This suggests that there may be different responses to witnessing domestic violence within the same family. According to VonSteen (1997), a child may use his or her siblings as scapegoats to justify the violence they witness. Secondly, another way a child could respond is to side with the batterer. Lastly, another child may assume the role of a peacemaker. Depending on the unique way each sibling responds, it could positively and negatively impact the sibling relationship.

There are many positive benefits of having a sibling reported throughout the literature. The presence of siblings is related to the development of social skills, communication skills and learning how to relate to others (Riggio, 1999). Possibly the relationship is beneficial because siblings provide companionship, assistance and emotional support for each other (Furman & Buhrmester, 1985; Cicirelli, 1994). Individuals with siblings report that they received empathy and were comforted by feeling not alone in their helplessness which enabled them to cope in high conflict family situations (Caya & Liem, 1998). In Sandler's study (1980) the protective effect of a sibling on adjustment, researchers examined children aged 5 to 9 from low income homes who reported a high frequency of stressful life events. It was found that children with siblings had fewer inhibition problems than only children. Other researchers found similar findings as individuals with positive sibling support were reported to have higher

levels of self-esteem, global self-worth and psychosocial confidence than would only children with high levels of conflict in their homes (Caya & Liem, 1998).

Presence or absence of a sibling and individual adjustment was investigated by Kempton, Armistead, Wierson & Forehand (1991). They found that children with siblings had less externalizing behavior problems than only children. Similarly, Jenkins & Smith (1990) reported that good sibling relationships are a protective factor in a child's psychological health. Supportive sibling relationships is associated with better outcomes at school for children with behavior problems (East & Rook, 1992).

It has been well established that confiding with siblings about interparental violence is a coping mechanism utilized by siblings (Bank & Kahn, 1982; Caya & Liem, 1998; Jenkins & Smith, 1990) as is receiving mutual support (Waddell, 1999). Similarly, research has found that siblings can be an invaluable source of support during stressful times due to an increased intimacy and confiding (Dunn, Slomkowski & Beardsall, 1994). In contrast, a study by McCloskey, Figueredo & Koss (1995) found that support from siblings failed to protect the 102 children sampled from the adverse effects of witnessing the violence. Yet the majority of researchers failed to replicate McCloskey et. al.'s study and continue to report that sibling relationships may provide a buffering effect for child witnesses (Caya & Liem, 1998; Frey-Angel, 1987; Lee, 1999; Waddell, 1999). Possibly, the buffering effect may be due to the trust in the sibling relationship and the ability to talk about the family secret that children do not want to talk about with outsiders due to fear and shame (Frey-Angel, 1987).

Notably, research has focused on the role of having an older sibling and its benefits on younger siblings. Researchers have found that older siblings may act as caretakers,

teachers and role models for younger siblings (Black & Newman, 2000; Bryant, 1989; Furman & Buhrmester, 1985). Researchers reported that the majority of older siblings respond to the younger sibling's distress with therapeutic responses (Stewart, 1983). Possibly, younger siblings learn to seek comfort from older siblings after an act of violence (Corter, Abramovitch & Pepler, 1983). Caya & Liem's study (1998) found that older siblings offered support to younger siblings by maintaining proximity, intervening in parental arguments, keeping eye contact and keeping them safe.

Researchers have shown that in stressful family environments older siblings report that they try to compensate for the lack of parenting experienced by their younger siblings (Cummings & Smith, 1993). Researchers reported that older siblings support is associated with higher levels of perceived self-confidence, self competence and adjustment for younger siblings (Dunn, Slomkowski & Beardsall, 1993). It is reported that older siblings may allow the younger children to feel safe and offer a substitute, positive role model for relationships (Frey-Angel, 1987). Researchers have reported that children are more likely to emulate competent role models (Tucker, Updegraff, McHale & Crouter, 1999). Research has found that a child with siblings to turn to and/or take care of may be at less risk of a psychological breakdown than a child who is all alone and trying to buffer the effects of parental conflicts (Bank & Kahn, 1982). In support of these findings, adults who witnessed domestic violence as children recalled that they acted as their younger siblings caretakers to increase their sense of self worth (Bank & Kahn, 1982).

While there may be positive benefits of acting as a caretaker, it is this researcher's opinion that older siblings may pay the price for their caretaking roles in homes with

domestic violence. Possibly, the parenting behavior of the older sibling could result in poor attendance and academic performance in school if their role makes them exhausted or uncomfortable leaving the house (Black & Newman, 2000). Notably, older siblings often have the additional stress of needing to protect the younger children and also the victim from the violence (Black & Newman, 2000). In homes with domestic violence, it appears that no one is buffering the stress felt by the older sibling. Possibly their role just works to increase their anxiety. Researchers have found that older siblings reported that they distract themselves by taking care of their younger siblings to avoid their own negative feelings (Frey-Angel, 1987). One can conclude that the positive impact of an older sibling on the younger siblings can not be denied. Yet, it remains unclear as to the impact of caretaking role for the older sibling.

Not all sibling relationships are beneficial. Siblings often act aggressively and violently towards each other (Kashani & Allan, 1998). This may be problematic in households where violence is an acceptable way to solve problems. Possibly, sibling rivalry could also hinder and not help siblings' relationships. Goodwin & Roscoe (1990) reported that there are high levels of conflict and violence among siblings. Siblings that do not have close and supportive relationships were found to have increased psychopathology and behavior problems when compared to children with close sibling bonds (Gilbert, 1999). Researchers have found that child and adolescent sibling relationships were more conflictual in families with parents who were dissatisfied with their marriage when compared children whose parents were happily married (Brody, Stoneman & McCoy, 1994; Erel, Margolin & John, 1998; Stocker & Youngblande, 1999). Consistent with these findings, Suh & Abel (1990) reported that children who

live in households with domestic violence are more likely to be abusive to their siblings but not to others outside of the home. In contrast, mothers of siblings in a domestic violence group therapy program reported that the siblings had lower levels of verbal and physical aggression than mother of siblings in the non-domestic violence comparison group (Waddell, 1999). Frey-Angel (1987) suggested that a sibling group therapy approach for treating the impact of domestic violence on children may be beneficial to reduce the likelihood of sibling abuse and increase sibling support by assisting the children in realizing that they can support each other through their shared experiences.

Only children are considered a natural comparison group for researchers studying the impact of siblings on development (Falbo & Polit, 1986). When compared with only children, children with close sibling bonds have shown less psychopathology and behavior problems (Gilbert, 1999). It is thought that having siblings is beneficial in decreasing the effects of negative stressful events. Only children often benefit by having a close relationship with their mother. Child witnesses of domestic violence with siblings may fair better than only children when examining the effects of domestic violence because the sibling relationship may be more consistent and reliable than the relationship between the battered parent and her child.

PURPOSE

The purpose of this study was to examine sibling relationships as a protective factor for child witnesses of domestic violence. It has been hypothesized that children with siblings that live in high conflict homes exhibit less negative effects than only children (Jenkins & Smith, 1990). This suggests that only children would score significantly

higher on measures of internalizing and externalizing behavior problems. Problems that will be considered as externalizing in this study will include; temper tantrums, impulsivity, hyperactivity, aggression, conflict with peers and siblings or bullying behaviors. Problems that will be considered as internalizing in this study will include; somatic complaints, sleep disturbances, anxiety, social withdrawal and depression. Only children are frequently protected by a close relationship with their mothers (Riggio, 1999). Although research is not conclusive on this point, it is this researcher's opinion that mothers who are victims of domestic violence are not able to attend to their children as would mothers that are not victims of domestic violence. Therefore, this would eliminate the most important protective factor known for only children. Further, it is hypothesized that older siblings who take on a caretaking role for younger siblings will score significantly higher than their younger siblings on measures of internalizing behavior problems but better than only children. Despite the increased stress of being in a caretaking sibling role, these children still have a built in support system that is not available to only children. Yet, because older siblings often take on a caretaking role and feel responsible for their younger siblings may possibly exacerbate internalizing problems for these children. Lastly, pre-test and post-test outcomes will be compared to determine whether the innovative treatment program provided by the PALS Project, benefits only children and children with siblings, respectively. Any ways that treatment interventions could be adapted to benefit both only children and children with siblings will be discussed.

RESEARCH HYPOTHESES

This study addressed the following hypotheses. First, first born and only children will show more internalizing and externalizing problems than younger siblings due to their role as caretakers and because they do not have an older sibling to buffer the emotional stress experienced by children witnesses to domestic violence. Second, both only children and children with siblings will benefit from the PALS Project intervention for child witnesses.

METHOD

Recruitment and Consent Procedures

The subjects were children aged 3-10 years whose mothers were receiving either shelter or domestic violence counseling at a county battered women's shelter located in New Jersey. The parents signed an informed consent form allowing their children to participate in the research and treatment offered by a women's shelter project called "Peace: A Learned Solution" (PALS). The control group was comprised by the first twenty children to enter the PALS project.

Study Sample

The subjects for this study consisted of (n=102) children whose mothers were receiving domestic violence counseling at a New Jersey county battered women's shelter. In effort to measure the treatment effect the first 20 children who entered the PALS Project were specified the control group. Among these children 44.1% were male and 56.1% were female. Of these children, 11.8% were only children and 88.2% of these children had siblings. Only children and first born were included in the category labeled "first born". The remaining children comprised the category labeled "not first born".

Program

The children in the control group were offered the standard psychoeducational group offered in most of New Jersey's battered women's shelter. The standard psychoeducational group addresses anger management, children not being the cause or

cure for domestic violence and safety issues. Control group children did not receive case management services nor did they receive individual therapy personalized to their individual needs. Children participating in the PALS Project intervention received intense group and individual therapy and intensive case management services during a six-month period. The caseworker meets with a child's parent on a weekly or as needed basis to assist the family and coordinate services that are provided, namely therapy and child care. Each child receives two therapeutic sessions per week in two primary modalities, art and drama. One session is a group session and the other is individual. The PALS Project is geared to address a child's feelings of depression, anxiety, aggression and any problems stemming from witnessing domestic violence. This intervention allows the children to express any concerns and emotions in a safe therapeutic environment.

Data Collection

Data was collected at baseline and at the conclusion of the 6-month treatment program at the shelter for battered women. The children were given the Children's Depression Inventory (CDI) a self report inventory that measures the theoretical construct of depression. The child's parent was given the Parenting Stress Index (PSI) which measures levels of stress associated with the act of parenting and the Child Behavior Checklist (CBCL) which measures internalizing and externalizing behavior problems. Demographic information including age, sex, and number of siblings was obtained by interviewing both parents and children.

Data Analysis

The data was analyzed using SPSS for Windows, Version 10. Differences between the two sibling conditions, first born and not first born, were analyzed for all CBCL and PSI

scales with independent t-tests. CBCL and PSI results collected at the conclusion of the 6-month treatment program were analyzed with a 2x2 Analysis of Covariance (ANCOVA). The fixed factors were treatment effects (treatment vs. control) and sibling effects (only children and first born vs. not first-born). The baseline measures obtained before treatment served as the covariate.

RESULTS

The mean scores for first born and not first born children on the initial CBCL are displayed in Table 1. No significant differences found on any of the scales. The mean scores for first born and not first born children on the initial PSI are displayed in Table 2. Again, there were no significant differences found. The mean scores for first born and not first born children on the initial TSI are displayed on Table 3. There were no significant differences found.

The mean CBCL subscale scores collected at the conclusion of the six-month treatment program for all groups are displayed in Table 4. A 2x2 Analysis of Covariance (ANCOVA) indicated significant treatment effects for 11 of the 12 CBCL subscales. A significant sibling effect was found only on the subscale of Somatic complaints, there were no significant interactions. The mean PSI subscale scores for all groups following the treatment program are displayed in Table 5. An ANCOVA indicated a significant treatment effect for the Child Domain and Life Stress scales. A significant birth order effect was found on the subscale of Mood and Life Stress. There were no significant interactions.

Parenting Stress Index	Mean	Standard Deviation	t	Significance 2-tailed (p value)
Distractibility/Hyperactivity				
First Born	25.71	6.33		
Not First Born	26.51	6.24	-.584	.561
Adaptability				
First Born	28.45	7.19		
Not First Born	28.51	6.15	-.044	.965
Reinforces Parent				
First Born	11.79	3.39		
Not First Born	10.87	3.59	1.201	.233
Demanding ness				
First Born	20.89	6.13		
Not First Born	21.40	5.62	-.399	.691
Child Mood				
First Born	12.76	3.23		
Not First Born	12.70	3.87	.078	.972
Child Acceptability				
First Born	14.50	4.40		
Not First Born	14.53	3.87	-.036	.972
Child Domain				
First Born	114.11	23.84		
Not First Born	114.53	22.57	-.084	.933
Parent Competence				
First Born	30.18	6.32		
Not First Born	29.51	7.16	.454	.651
Parent Isolation				
First Born	13.76	3.97		
Not First Born	15.15	4.09	-1.573	.119
Parent Attachment				
First Born	12.29	2.97		
Not First Born	12.45	2.63	-.259	.796
Parent Health				
First Born	12.74	3.78		
Not First Born	12.85	3.80	-.138	.891
Parent Role				
First Born	18.21	5.35		
Not First Born	19.98	5.68	-1.464	.147
Parent Depression				
First Born	21.05	5.41		
Not First Born	24.40	16.87	-1.176	.243
Spouse Score				
First Born	20.26	6.39		
Not First Born	21.66	7.11	-.942	.349
Total Parent Domain				
First Born	128.50	25.12		
Not First Born	136.00	30.89	-1.208	.230
Total Stress Score				
First Born	242.61	42.71		
Not First Born	250.53	45.62	-.819	.415
Life Stress Score				
First Born	18.79	9.84		
Not First Born	21.11	10.44	-1.044	.300
Defensive Responding Score				
First Born	37.39	9.08		
Not First Born	40.47	10.68	-1.409	.163

Table 2. The initial mean PSI sub-scale scores of first born children (n =38) and not first born children (n =47).

Trauma Symptom Index	Mean	Standard Deviation	t	Significance 2-tailed (p value)
Atypical Response				
First Born	1.87	2.26		
Not First Born	1.98	2.71	.405	.526
Response Level				
First Born	.933	1.37		
Not First Born	1.22	1.64	2.70	.104
Anxious Arousal				
First Born	10.55	4.95		
Not First Born	10.47	4.88	.078	.781
Depression				
First Born	9.85	4.66		
Not First Born	9.78	4.60	.000	.988
Anger/Irritability				
First Born	10.13			
Not First Born	10.84	3.87	.295	.589
Intrusive Experiences				
First Born	8.65	5.25		
Not First Born	9.13	4.98	.051	.822
Defensive Avoidance				
First Born	11.92	5.51		
Not First Born	12.60	5.77	.185	.668
Dissociation				
First Born	7.28	5.05		
Not First Born	8.13	4.18	2.58	.112
Sexual Concerns				
First Born	5.05	4.74		
Not First Born	6.45	4.87	.099	.753
Dysfunctional Sexual Behavior				
First Born	2.68	3.06		
Not First Born	3.48	3.60	.039	.844
Impaired Self-Reference				
First Born	9.23	5.13		
Not First Born	9.42	4.92	.134	.715
Tension Reduction Behavior				
First Born	3.73	3.78		
Not First Born	4.14	3.38	2.51	.618

Table 3. The initial mean TSI sub-scale scores of first born children (n =39) and not first born children (n =44).

CBC Sub-scales	T	B	I	Control Group Means		Treatment Group Means	
				First Born n=8	Not First Born n=12	First Born n=11	Not First Born n=15
Withdrawn				3.88	2.58	2.18	3.00
Somatic Complaints	*	*		1.25	1.50	.64	1.27
Anxious/ Depressed	*			6.88	6.17	3.27	3.67
Social Problems	*			3.13	4.08	1.82	2.40
Thought Problems	*			1.50	1.83	0.00	1.56
Attention Problems	*			6.25	5.92	3.09	4.00
Delinquent Behavior	*			2.88	2.92	1.00	2.13
Aggressive Behavior	*			13.57	15.50	8.45	9.53
Other Problems	*			7.75	8.80	5.78	6.25
Internalizing	*			11.75	9.75	5.82	7.60
Externalizing	*			16.57	18.42	9.45	11.67
Sex Problems	*			.625	.917	.000	6.66
Total Score	*			45.88	48.58	25.09	31.53

T = Treatment Effect

B= Birth Order Effect

I = Interaction

* Indicates statistical significance at .05, $df_{\text{treatment}} = 1$, $df_{\text{alcohol use}} = 1$, $df_{\text{interaction}} = 1$, $df_{\text{error}} = 33$

Table 4. The mean CBCL sub scale scores for all groups following the 6-month treatment program

PSI Sub-scales	T	B	I	Control Group Means		Treatment Group Means	
				First born n=9	Not first born n=11	First born n=10	Not first born n=13
Child Domain	*			113.44	113.82	98.60	103.77
Adaptability	*			29.22	27.91	24.90	25.77
Acceptability				15.11	13.55	11.40	14.62
Demandingness	*			22.33	21.45	18.10	19.77
Mood		*		11.33	13.00	11.40	11.15
Distractibility/ Hyperactivity				24.89	28.27	24.20	23.08
Reinforces Parent				9.44	9.64	9.70	10.15
Parent Domain				140.17	124.22	162.00	115.79
Depression				19.44	19.46	21.50	21.69
Attachment				12.44	12.73	12.70	11.92
Role Restriction	*			18.11	19.64	16.80	15.08
Competence				29.89	24.45	30.00	26.85
Isolation	*			15.44	14.73	13.00	14.85
Spouse				25.17	20.33	25.40	19.74
Health				20.44	21.55	20.67	21.54
Total Stress				240.78	237.00	228.33	225.08
Life Stress	*	*		13.89	18.40	22.90	22.17
Defensive Responding				33.67	38.45	34.30	36.15

T = Treatment Effect

B = Birth Order Effect

I = Interaction

* Indicates statistical significance at .05, $df_{\text{treatment}} = 1$, $df_{\text{alcohol use}} = 1$, $df_{\text{interaction}} = 1$, $df_{\text{error}} = 35$

Table 5. The means for PSI sub-scale scores for all groups following the 6-month treatment program.

DISCUSSION

There are no significant differences found on the initial PSI, TSI and CBCL as a function of birth order. These results support the findings of Dunn (1995) and Patterson (1986), who found that sibling relationships may not buffer children from the effects of witnessing parental discord.

The results of this study indicate a treatment effect for both first born children and not first born children who have participated in the PALS Project intervention. This result is consistent with previous findings reported in this ongoing longitudinal investigation (Jeffrey, Frisone & Owens, 1999). With the exception of the Somatic Complaints subscale, no significant birth order effects were found on the follow up CBCL for either the treatment or control group. The higher level of Somatic Complaints appear in both control and treatment group children. It is possible that younger siblings may be more likely to report somatic complaints due to a supportive sibling relationship. A significant life stress score on the PSI indicated that parents of children in the first born group have lower levels of life stress. This could be due to the fact only children are included in that group and it is logical for parent's of only children to have less stress. There was a significant birth order effect on the subscale of mood on the PSI. The children with an older sibling had more frequent mood related symptoms. Possibly because the younger children did not have a close or supportive relationship with the older sibling, making the witnessing of domestic violence more traumatic as a function of their age. Again, this might be a coincidental finding, but even if this effect is real, this result does not provide

evidence that the presence of an older sibling can attenuate the effects of witnessing domestic violence.

The Sibling Bond

Siblings in research have been described as a companion, model, pest, tormenter, rival, teacher, protector, caretaker or vengeful enemy (Pfouts, 1976). Children can bond with their siblings in an number of ways. Boer (1990) classifies several types of sibling bonds; warm, ambivalent or violently negative. Research has found that warm sibling relationships, characterized by close and frequent positive interactions, are more likely to develop when the children's parents are distant (Boer, 1990). Yet, he found that in all cases, despite the type of bond the siblings shared that when parental conflict increased so did the conflict between siblings (Boer, 1990).

Jenkins, Smith & Graham (1989) report that children can only benefit by a supportive sibling relationship if the siblings are close and have a warm relationship. Later, Jenkins (1992) stated that just the presence of a sibling regardless of the status, bond and relationship is associated with positive psychological outcomes. Contrary to the findings in the present study. Other research supports Jenkins et.al. (1989) earlier finding stating that a high level of sibling support must be present to buffer the negative effects of witnessing family conflict (Caya & Liem, 1998). Unfortunately, the present study did not assess the strength of the sibling bond. Past research by Kadushin (1974) found that strongest sibling bonds occur when that children's parents are not functioning together in a healthy manner. Yet, the present study revealed that there were no buffering effects for a child who has a sibling, whose parents relationship is plagued with violence. Ward

(1984) states that a child could have a strong bond with their sibling, yet the relationship may be plagued with predominantly negative interactions.

Intense patterns of sibling rivalry develop when various stressors are evident (Ostrovsky, 1970). These stressors include: a failure to develop a sense of trust towards one's parents, seeking parental attention in both a positive and negative manner, being intimidated by a parent, and witnessing family conflict (Ostrovsky, 1970). One could assume, based on this research that child witnesses of domestic violence exhibit intense patterns of sibling rivalry.

Rarely are sibling relationships independent of the family home environment therefore, the sibling relationship is closely related to the family relationships (Brody & Stoneman, 1988). Intense sibling relationships develop under two conditions "high sibling access" and "vacuum of parental care" (Bank, 1992). When these two conditions occur simultaneously it increases the likelihood that children will have an intense yet disturbed relationship with their siblings (Bank, 1992). Further, when the family is isolated with little outside support, children are at an increased risk of developing disturbed relationships (Bank, 1992).

It has been found that sibling relationships can influence the development of internalizing and externalizing behavior problems in a positive or negative direction (Dunn, 2000). Bank & Kahn (1982) hypothesize that when there is little relief from the immediate situation and parents are not properly taking care of their children's needs and modeling appropriate relationship skills older siblings who in other contexts may take a supportive or caretaking role, with the tools to be adequate substitute parental role models. Bank & Kahn (1982) describe two children who were victims of the Holocaust.

In this situation the older sibling was able to care for the younger sibling under horrendous circumstances because she had witnessed and reenacted appropriate caretaking from her parents and she could recall interactions that revealed loving and caring behaviors that enabled her to than love and care for her sister. This could be the missing link for child witnesses of domestic violence who may have a distorted perception of behaviors that exhibit love and care.

Research describes four types of sibling relationships that traumatized children exhibit: (1) Absent sibling- the child has had little experience connecting with an adult and are therefore unable to seek out other relationships (2) Adult lockout sibling- siblings bond together when the adult attachment figure is absent (3) Half and half sibling- siblings reenact difficulties that are witnessed from the parents relationship and (4) Trauma shield sibling- siblings remain at same developmental level as a means to cope with flawed and horrific conditions (Leavitt, Gardner, Gallagher & Schames, 1998). The absent sibling type may dominate in a home where domestic violence is occurring. As a child may not have learned how to utilize a sibling as a source of comfort and support. Similarly, the findings of Hunter & Kilstrom (1979) who stated that the presence of a sibling is in itself inadequate, but the ability and skills needed to utilize that relationship for support is a key in ceasing the intergenerational transmission of violence.

Intergenerational Transmission of Violence and Social Learning Theory

The intergenerational transmission of violence theory suggests that violence is learned and those that have been abused are more likely to be abusive towards others (Straus, 1979). This could lead to a cycle of violence where a parent is abusive and in return a child acts in an abusive manner towards future generations (Straus, 1979). In light of the

present research findings, I have altered this concept slightly renaming it the Intragenerational transmission of abuse. Intragenerational transmission of abuse could be described as abuse within a generation, specifically abuse that is learned from an older generation and then repeated across the generation. Supporting the idea that children who witness violence may be more likely to be violent intragenerationally, Jeffrey et al., (1999) reported that 10.8% of the PALS Project children reported they had initiated or experienced sibling violence. The intergenerational transmission of violence theory is related to the social learning theorists construct of modeling (Bandura, 1971; Herzberger, 1983). Modeling is defined as a learning process where behaviors are observed and then imitated (Bandura, 1971).

A child witness of domestic violence observes aggression between his or her parents who are the most influential and immediate role models they are exposed to during their childhood (Herzberger, 1983). This could cause a child to believe that love and violence go hand in hand (Herzberger, 1983). This would make child witnesses of domestic violence more likely to behave in an angrily and hostilely towards those in which they had intimate relationships including their siblings (Hanson, Saunders, & Kistner, 1992). This offers a possible explanation for Dunn's (1995) finding that children whose parents are in conflict are engaged in more frequent arguments with their siblings. Children who have witnessed violence as a means to solve problems and express love may have an extremely distorted sense of how relationships work. Inappropriate problem solving skills learned from the dysfunctional relationship between a child's parents may lead to a child replicating what was learned and developing unhealthy sibling relationships.

Buffering Sibling Relationship in Divorce but not Domestic Violence

In divorced families, sibling support is able to buffer and increase the likelihood of psychological adjustment to stress in the family environment (Bank, Patterson & Reid, 1996; Cowen, Pedro-Carroll & Alpert-Gillis, 1990; Jenkins & Smith, 1990, Lee, 1999; Waddell, 1999). Sibling relationships also act as a buffer against maladjustment when traumatic events occur outside the home environment, such as war or natural (Widmer & Weiss, 2000). It is also possible that the stress that a child is facing when witnessing violence between his or her parents may outweigh any possible buffering effects of having a sibling.

Not all siblings all children are protected or aided by a sibling relationship when there is ongoing parental conflict (Brody, Stoneman & McCoy, 1994; Patterson, 1986). When children are coping with parental conflict and divorce, their adjustment is related to the anger and violence witnessed throughout the conflict, whether the conflict is resolved, whether the conflict involves the child, and how long the conflict occurs (Cummings & Davies, 1994; Emery, 1982; Grych & Fincham, 1990). With divorce the end of the fighting is in sight and the conflict eventually becomes resolved. Parental conflict that is sporadic increases the likelihood that siblings will turn to one another for support whereas ongoing parental conflict is associated with ongoing and continued conflict between siblings throughout their development and lifespan (Bank & Kahn, 1982).

Siblings vary in how they cope with parental conflicts, they may fight routinely, or avoid one another (Furman & Buhrmester, 1985). Emery (1982) suggests that witnessing anger causes a child to experience negative emotional reactions which may lead them to displace and direct these reactions toward a sibling.

Emery & Forehand (1994) developed the resilience perspective for children who's parents have divorced. This research has found that differences in how children cope with divorce is associated with how successfully the family manages the process of divorce and threats felt by the children (Emery & Forehand, 1994). Resilient children do not experience the documented effects of divorce on children, but they still suffer with painful memories and often have strained relationships with family members (Emery & Forehand, 1994).

Being exposed to domestic violence is more detrimental to a child's outcome than being exposed to verbal parental conflict (Forrstrom-Cohen & Rosenbaum, 1985). Research has found that children exposed to domestic violence reacted with greater emotional intensity to a contrived verbal conflict regarding money than a group of children who have witnessed nonviolent parental conflict (Adamson & Thompson, 1998). The repercussions of witnessing a verbal conflict for a child witness of domestic violence included intense feelings of anger and sadness (Adamson & Thompson, 1998). Another study found that as rates of parental aggression increased so did rates of aggression toward siblings (Gully, Dengerink, Pepping & Bergstrom, 1981). Witnessing domestic violence may not only be traumatic for children but negatively influence their ability to develop a relationship with a sibling.

Siblings as Potential Abusers

The number of cases involving sibling abuse is on the rise. A study by Steinmetz (1982) found that 63 to 68% of siblings between the ages of 3 and 17 had a violent interaction with one of their siblings in a years period. More frightening, Roscoe, Goodwin & Kennedy (1987) surveyed 244 junior high students and found that 88% of the

males and 94% of the females had been victims of sibling violence. A study with a nationwide representative sample of homes with domestic violence conducted by Straus, Gelles & Steinmetz (1980) found that abusive sibling relationships were reported in over half of the homes. Supporting the research that has found that children with high levels of parental conflict have more frequent hostile relationships with their siblings (Jenkins, 1992). A child's sibling relationship in a domestic violence ridden atmosphere may reflect the power imbalances and coping strategies employed by the parents (Pepler, Catallo & Moore, 2000).

If sibling abuse research is framed in light of Bandura (1971) theory that children learn what they see and imitate that behavior, child witnesses of domestic violence would be more likely to develop abusive rather than supportive sibling relationships. As noted previously Herzberger (1983) stated that witnessing violence between parents could cause a child to believe that love and violence go hand in hand. This would make child witnesses of domestic violence more likely to behave in ways in which anger and violence are used towards a sibling (Hanson, Saunders, & Kistner, 1992).

Disintegration of the Family

Trauma that takes place outside of the immediate family environment, such as war or a hurricane has been shown to bring the family together and increase their cohesiveness (Reiss & Oliveri, 1991). However, a trauma such as living in a domestic violence ridden atmosphere is related to an increased toxicity of the family (Barnett, Miller-Perrin & Perrin, 1997). Possibly, the cycle of violence that often reoccurs in domestic violence may cause the relationships among family relationships to disintegrate under such

conditions. Similarly, the level of pathology could break down the immune system of the family resulting in abusive or avoidant sibling relationships rather than supportive.

The environment in which a traumatized family resides is one where the family members are close in proximity but not emotionally (Catherall, 1988). Families living with internal trauma are likely to exhibit constricted or absent emotional expressiveness (Catherall, 1988). Catherall (1988) has described families living with internal trauma as “alixithymic” as there is a lack of genuine connections and closeness among family members. The type of trauma encountered for child witnesses of domestic violence may eliminate any possible buffering effects found from having a sibling. The sibling relationship may not have formed or may begin to deteriorate under domestic violence conditions. Child witnesses of domestic violence may cope with problems and interact with their siblings in ways that were modeled by their parents. Children who witness ongoing unresolved anger are more likely to develop styles of behavior and interacting that lead to increased sibling conflict (Brody, 1998). Further as children utilize coping strategies that include violence and anger it is possible that they will initiate conflict with their siblings (Brody, 1998). When sibling relationships are conflictual it is less likely that a child will receive prosocial support and care from an older sibling (McHale & Crouter, 1996).

Little is known regarding the relationship between living in traumatic environments and sibling relationships across the lifespan. With new case law from a decision in a California Appeals court, a child who is witnessing domestic violence is a child who is considered neglected (*In re Heather A. et al v Harold, A.*, 52 Cal App 4th 183, 1997). This decision weighs heavily on domestic violence advocates. Families where domestic

violence is prevalent are usually isolated from is segregated from the community. If a batterer is placed in jail and the victim in the hospital it is probable that the Division of Youth and Family Services will get involved. What will happen to the child victims at home? According to the new legislature children in this situation would be placed in foster care, which could contribute to further disintegration of the child's relationship with their siblings.

Long-term Effects of Witnessing Domestic Violence on the Sibling Relationship

It has been said that development of a positive sibling relationship during early childhood is vital because it is the foundation for permanent adult roles (Pfouts, 1976). Being a child witness of domestic violence can negatively impact adult sibling relationships. One long-term effect of witnessing domestic violence as a child is that as an adult there are marked interpersonal struggles with their siblings (VonSteen, 1997). Siblings may remind each other of past traumas and longstanding secrets or may avoid each other because they have lacked an appropriate model for developing a relationship (Von Steen, 1997).

Further evidence that witnessing domestic violence has a tremendous impact on the development of sibling relationships is a study by Bank & Kahn (1982). They found that often siblings attribute the pain, suffering and confusion caused by their parents to their siblings. Impaired social functioning is a long term effect of witnessing domestic violence as a child causing adults to have difficulties generating and sustaining relationships with family members and others (Von Steen, 1997).

As adults if siblings are able to make peace with the past they can be a source of support and assist each other in dealing with current or future stressors (Hegar, 1988). As

adults, siblings may finally realize that they suffered with their siblings not because of them, yet they may avoid and neglect the sibling relationship due to the strong reminder of the family's pain and perceived failure (Bank, 1992). Bank & Kahn (1982) state that siblings can accept or reject each other for many reasons and their previous shared problems are not easily forgotten. As adults siblings spend a majority of their time together reminiscing about their family experiences as children (Cicirelli, 1985). It may be that if earlier secrets are discussed and the past is confronted for adult siblings who witnessed domestic violence as children, they may be able to transition into more positive sibling relationships as adults. The adult sibling relationship is extremely important as the family's past is remembered, put into perspective and reenacted during family gatherings (Schulman, 1999).

If the intergenerational transmission of violence is to cease, the past needs to be confronted. Research states that adult siblings hold the key to the next generations view and behavior (Schulman, 1999). In the book *The Architect of Desire: Beauty and Danger in the Stanford White Family* (Lessard, 1996) describes how four generations of the white family had been severely influenced by violence and abusiveness that was handed down because of the preceding generations unwillingness to confront the past. This had a toxic effect on the lives of the children, grandchildren and even great grandchildren. The cycle was broken only when one sibling organized a family meeting with the other siblings and confronted the past that had remained unspoken for over 100 years. The siblings confronted the fact and fiction of their family history and the effect the past was having on the present. These discussions were necessary to liberate the family and the generations to come from reliving the past.

Does a Buffering Effect Occur Later in Childhood?

It is possible that due to the age group of the subjects the protective factors of being in a sibling relationship are not yet established. Resilience is related to a child's developmental stage where at one point a child appears to be more resilient than others (Kinard, 1998). Possibly, a buffering sibling effect occurs at an age later than the population used in the current study.

Implications for Interventions for Child Witnesses of Domestic Violence

When treating victims of domestic violence, child witnesses included, research states a goal of therapy should include restructuring of the family roles and relationships (Rabenstein & Lehmann, 2000). Although the PALS Project has been effective in treating and improving both only children and children with siblings symptoms, it is not known whether or not relationships between the family members are improved. Possibly, adding a measure that examines the relationships among family members would answer this question. Abrams (1999) suggests that how the trauma has affected the individual, the family and the environment needs to be explored in a safe therapeutic environment. Further, the traumatic secret that each individual family member is dealing with needs to be approached by a therapist who facilitates an open dialogue among family members (Abrams, 1999). This type of therapy could assist in halting any transmission of abuse/trauma and improve family relationships and overall functioning (Abrams, 1999).

LIMITATIONS OF THE STUDY

Findings of the current study have implications for developing treatment strategies for child witnesses of domestic violence. Further, there are implications regarding the lack of a buffering effect of siblings for child witnesses of domestic violence. However, given

the limitations of the current study, caution must be exercised in generalizing to all child witnesses to domestic violence.

First, the current study failed to produce a sample with enough only children to assess accurately the differences between only children and children with siblings. Therefore the hypothesis can not be confirmed or denied. This is a significant limitation that future research could overcome easily. Replication of the current study is suggested as the sample of PALS participants continues to increase. However, due to the small percentages of only child families in the US it may be difficult to obtain an adequate number of only children.

Second, the method of data collection, self-report and parent report measures, are only as valid as the honesty of the responses given by a child or a parent. An individual could argue that self and parental report measures are not true indicators of the child or parent's symptoms. Future research should consider the use of actual measures of the construct that do not rely on self-report. This would work to increase the study's validity.

Given the variety of the level of violence to which these children are exposed, the self-report method of obtaining data make it difficult to gain an understanding of the variables that contribute to negative and positive influences of coping with witnessing domestic violence. Using a psychometric that more sensitively measures coping mechanisms used for child witnesses to domestic violence would shed some light on the absence/presence of a buffering sibling effect.

Future research should focus on resilience factors that influence a child witness of domestic violence failure to develop internalizing and externalizing problems. Other research could focus on a possible continuum of trauma that a child in a sibling

relationship could experience and at what point does the buffering effect become null and void. For example, in cases of divorce a buffering effect is found but what are the circumstances in which the trauma becomes so debilitating that any possible sibling buffering effect does not help. It appears that because in the present study the siblings who witness domestic violence did not experience a buffering effect, this type of trauma may work to disintegrate any buffering effect and actually increase violence between siblings. These are all questions that need to be answered to better understand the intra-family relationships for child witnesses to domestic violence.

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