

The Impact of Experiencing and Witnessing Family Violence during Childhood: Child and Adult Behavioural Outcomes

By

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In recent years, researchers in the area of family violence have provided alarming statistics on the incidence of both wife battering and child abuse. Within the general population, the most accurate estimate regarding the extent of battering in Canada is found in the Violence Against Women survey (Statistics Canada, 1993). In this survey, conducted with a random sample of over 12,000 women nation-wide, the proportion of ever-married women disclosing physical abuse by a male partner was 29%. Fifteen percent of those currently in a marital relationship reported violence. Within an offender population, the prevalence of violence against female partners is at least as high as in the larger community. In the first national study of family violence perpetrated by federal offenders, Robinson & Taylor (1994) found references to physical abuse of a female partner in 29% of offender files. However, it must be noted that most of the recorded incidents had resulted in official charges. Because wife assault cases seldom come to the attention of the criminal justice system -the probability of detection has been estimated at 6.5% (Dutton, 1987) - it seems reasonable to assume that the true rate of domestic violence among offenders is in fact higher than the review of files indicates. Research conducted with the female partners of offenders confirms that domestic violence is often perpetrated by men who have no record of such behaviour in their files (Dutton & Hart, 1992b).

Children are thought to be present during 68% (Leighton, 1989) to 80% (Sinclair, 1985) of wife assault incidents. As high as these percentages are, they may still underestimate the proportion of children who witness marital violence since information regarding observation by children is frequently collected from mothers. When children themselves are questioned, they often divulge that they are aware of more abuse than their mothers believed them to be (Rosenberg & Rossman, 1990). A study of school children residing in London, Ontario revealed that 23% have witnessed the assault of their mothers by a male partner (Jaffe, 1990; cited in Myers Avis, 1992).

As for the number of children who are direct victims of physical abuse by parents, there are no national statistics available in Canada. According to American research, between 5% (Parke & Collmer, 1975) and 14% of children in the general population are victims of child abuse (Straus, Gelles & Steinmetz, 1980). Robinson & Taylor's (1994) file review study of federal offenders revealed that quite a substantial proportion (34.6%) had been physically abused in childhood. The rate of child abuse perpetrated by this sample of offenders was 3.1%, but as mentioned in the context of partner abuse, the majority of family violence incidents in the offenders' files were those that resulted in official charges. One suspects that there may have been many more unreported incidents of child abuse perpetrated by these men. The secrecy surrounding child abuse

and the dependency of children on the abusers means that information gathered from official sources (e.g., police and hospital records) greatly underestimates the extent of child abuse (Canadian Centre for Justice Statistics, 1994).

The phenomena of wife battering and child abuse appear to be correlated although the estimates of overlap are variable. According to Jaffe, Wolfe & Wilson (1990), in one-third of families where there is marital violence there is also child abuse occurring. Walker (1984) reports that over 50% of batterers also physically abuse their children. Bowker, Arbitell & McFerron (1988) found that batterers also abused their children in 70% of families and that the more severe and frequent the wife abuse was, the more severe the child abuse that occurred. The association between marital violence and child abuse is more often attributable to a batterers directing aggression toward his children than to a battered woman's displacing anger at her partner onto her children. A recent review of the literature indicates that when wife assault occurs in a family, children are at greater risk for abuse from the batterer than they are from the battered woman (Saunders, 1994). Wolfe (1987) agrees that although much research on child abuse focuses on female perpetrators, men are more likely to physically abuse children than are women.

Given the substantial proportion of children who are witnesses to marital violence and/or direct victims of physical abuse by their parents, it is important to ascertain the impact that such experiences might have on these individuals. Recently, reliance on anecdotal evidence regarding the consequences of family violence has given way to empirical research on the question. Studies of children in battered women's shelters that consisted of informal descriptions provided by shelter workers have been replaced by quasi-experimental designs comparing witness and/or victimized children with controls on standardized instruments. Much of the research conducted demonstrates that children who see or experience violence in their families are at risk for adjustment difficulties in emotional, psychological and cognitive domains (Goodman & Rosenberg, 1987; Jaffe, Wolfe & Wilson, 1990). For example, the child witness to marital violence may experience sleep disturbance, poor impulse control, poor academic performance, difficulty in concentrating (Hurley & Jaffe, 1990), low self-esteem, lack of self-confidence, insecurity, fear and vulnerability resulting in anxiety (Hughes, 1986) and internalizing symptoms such as depression, withdrawal, passivity, and feelings of hopelessness (Jaffe, Wolfe & Wilson, 1990). Individual responses can vary considerably, there is no one "typical reaction" to family violence (Jaffe, Wolfe & Wilson, 1990; Kashani, Daniel, Dandoy & Holcomb, 1992). Some of the problems described, e.g. depression, anxiety, can still be present in adolescence and adulthood (Carlson, 1990; Forsstrom-Cohen & Rosenbaum, 1985).

Despite the serious nature of the above-noted correlates of abuse, the issue that has likely received the most research attention is the link between violence in the family of origin and later aggressive behaviour by the witness/victim. Even in childhood, those who were abused by parents often display more aggressive behaviour than comparison groups (Dodge, Bates & Pettit, 1990; Truscott, 1992). Children who witness physical violence between their parents but are not themselves physically abused may also be more apt to be aggressive (Fantuzzo & Lindquist, 1989). As with internalizing behaviours, it may be possible to trace aggressive outcomes into adulthood. Some studies have uncovered an increased likelihood of arrests for violent crime among

family violence victims (Widom, 1989a; Widom, 1991). McCord (1983) found that parental conflict and violence in an individual's history were predictive of serious crimes against the person (e.g., assault, kidnapping, sexual assault and murder) committed in adulthood. Investigators have also explored the issue of domestic violence in the witness/observer's own adult family.

The idea that "*violence begets violence*" has a great deal of intuitive appeal. Yet a recent review of the empirical support for this hypothesis has revealed numerous methodological shortcomings in the research (Widom, 1989b). These methodological problems may have led investigators to overestimate the extent to which violent behaviour is exhibited by former abuse victims/witnesses. For example, the results of a child abuse study by Hunter and Kilstrom (1979) illustrate how two common procedures in the cycle of violence research, i.e. use of a retrospective design and a focus on clinical or agency-identified samples, tip the balance in favour of finding that victims become victimisers. A sample of 255 families with a premature or ill new-born was recruited at the time of birth from a new-born intensive care unit. Within a year, 10 families had been reported to social service agencies for abusing their children. During an interview conducted at study intake, nine of these abusive parents (90%) revealed that they had themselves been abused by their parents. But if one considers all the parents in the sample who reported having been victimized in childhood (n=49), the nine who were later reported for child abuse represent only 18% of the subsample. Clearly, a much higher rate of intergenerational transmission for child abuse would have been inferred if only the parents reported for abuse were questioned about their family of origin than if the (actual) prospective study of "high risk" families were conducted.

Widom's (1989b) survey of the literature on the cycle of violence identified several additional methodological problems that characterized research in the area:

- criteria for abuse and neglect across studies were inconsistent, sometimes including unsubstantiated cases;
- many investigations relied on retrospective or second-hand information which may be questionable with respect to accuracy;
- most studies could not speak to the issue of prediction because they utilized a retrospective design;
- convenience or opportunity samples were often used;
- correlational designs precluded determinations of causality;
- abused and neglected individuals were not always differentiated;
- many studies failed to include appropriate comparison groups or to consider statistical base rates for violent behaviour;
- delinquency studies often described more generalized delinquent behaviours instead of concentrating on violent criminal behaviour;
- few studies assessed the long-term consequences of abuse and/or neglect into adulthood.

After outlining these limitations, Widom still concluded that violence in the family of origin increased an individual's risk for becoming violent in adulthood. However, she cautioned that "it cannot be said that the pathway is straight or certain." (Widom, 1989b; p. 24). For example, she estimated that 30% of child abuse victims would go on to abuse their own children; a figure that is smaller than some might expect. Widom's estimate is consistent with numbers provided by other family violence researchers (Kaufman & Zigler, 1987; Oliver, 1993). It should be noted that emphasis on the rate being lower than expected is not intended to downplay the importance of the problem of family violence in any way. Rather, the intention is to underscore the fact that violent behaviour by victims and/or witnesses is not a foregone conclusion; the presence of violence in the family of origin does not mean that one is destined to become an abusive partner or parent.

The purpose of this report is to provide an update on the "cycle of violence" research published in the years since Widom's summary ¹, with an eye toward determining whether the problems described in the earlier review are addressed in subsequent investigations. Although the present review is intended to be comprehensive, it does not purport to be exhaustive. Furthermore, it should be made clear that some researchers use the phrases "cycle of violence" and "intergenerational transmission of violence" to refer specifically to former victims/witnesses engaging in family-directed violence whereas others use those terms more broadly to encompass violent acts in general. Both forms of the cycle of violence hypothesis are of interest to the Correctional Service of Canada (CSC) because both intrafamilial and extrafamilial violence may contravene the Canadian Criminal Code.

The main focus of this review will be on studies pertaining to the extent of intergenerational transmission of child physical abuse and wife battering, although extrafamilial aggression will also be discussed. Of special interest is research exploring the issue of family violence among offenders, especially since abuse histories are said to be the norm in such populations -- one investigator claims that 90% of prison populations have a history of sexual, emotional and/or physical abuse (Miller, 1990). Others suggest that there are numerous background variables that are common to both criminality and family violence, making offenders an important group to study (Dutton & Hart, 1992b). For the purposes of this report, research on the violent sequelae associated with viewing and experiencing abuse will be described first for children and adolescents, setting the stage for a more detailed discussion of the aggressive behaviour displayed by adult witnesses and/or victims.

Most studies testing the cycle of violence hypothesis use one of two basic research designs. The first design is used with adult or adolescent respondents and is usually retrospective in nature. The respondent's current level of violence is considered in conjunction with information about marital violence and/or child abuse perpetrated by the respondent's parents. The second design involves assessing adult respondents' current level of violence and relating it to their school-aged children's concurrent adjustment. Although research using the latter design does not test the intergenerational hypothesis directly, studies of children are valuable given the evidence that aggressive children can remain aggressive into adulthood (Eron, Huesmann & Zelli,

¹ Selected studies published prior to or concurrent with Widom's review will also be examined.

1991; Farrington, 1991). A number of mechanisms by which viewing/experiencing violence may lead to later violence have been proposed (Jaffe, Hurley & Wolfe, 1990). Social learning theorists would suggest that violence in the family may directly affect behaviour given that parents are potent models which children are likely to imitate. An indirect effect on behaviour may also occur via the impact of family violence on attitudes regarding the appropriateness of violence. From an attachment perspective, violence disrupts the internal working model that is developed through interaction with parent; this distorted model of relationships is in turn carried forward as the prototype for future relationships (Sroufe & Fleeson, 1986).

Much of the research addressing the impact of family violence on children has been conducted with agency-identified samples, i.e., children and their mothers are recruited from battered women's shelters or from child protection agencies (Jaffe, Hurley & Wolfe, 1990). For example, a recent study of the long-range effects of witnessing marital violence compared current and former child residents of a battered women's shelter with a non-violent control group (Wolfe, Zak, Wilson, & Jaffe, 1986). The battered mothers were asked to report on their children's aggression using the Child Behaviour Checklist (CBCL; Achenbach & Edelbrock, 1981), a measure designed to identify children who exhibit behaviour problems serious enough to warrant clinical intervention. Former residents had not been exposed to marital violence for at least 6 months while the current resident group had been exposed within the last 6 weeks. According to the mothers' reports, there were no significant behavioural differences between children who had witnessed violence (either in the recent or more distant past) and children who had not.

However, it would be inappropriate to interpret these findings as proof that there are no long-term effects associated with witnessing violence. The sample used in the study was quite unusual in that the comparison group of children scored an average of one standard deviation above the norm on the Child Behaviour Checklist²². Scores as high as these are surprising for a control group, especially given the clinical nature of this instrument. This aberration may have obscured group differences, leading to the determination that there are few differences between witnesses and non-witnesses when such a conclusion may actually be erroneous. Although children in this group were not significantly different from the other two groups with regard to behavioural problems exhibited, it is quite possible that they would differ in other important ways. The Child Witness to Violence Interview (Jaffe, Wilson, & Wolfe, 1988) was designed to assess reactions that are not considered in standard measures of adjustment like the CBCL. Studies conducted using this interview indicate that children exposed to wife battering are significantly more likely to condone violence as a means of resolving conflict in interpersonal relationships in addition to feeling responsible for the violence and possessing inadequate safety skills to deal with a violent event (Jaffe et al., 1988).

Davis & Carlson (1987) also looked at the effects of witnessing violence among 66 children residing in a battered women's shelter. The sample ranged in age from 4 to 11 years. It was assumed that by virtue of their coming to the shelter, they had all witnessed marital violence. Half of these children were also known to be victims of abuse as they had been involved with local child protective services. A comparison of

²²A similar finding was reported in Christopoulos, Cohn, Shaw, Joyce, Sullivan-Hanson, Kraft & Emery (1987), i.e., elevated externalizing scores were found in a community sample of boys.

witnesses to victim/witnesses using the Child Behaviour Checklist showed higher levels of aggression by the second group, as reflected in the proportion of children whose scores were in the clinical range (24% of witnesses and 47% of victim/witnesses). Gender and age were also significantly related to the aggression factor, with school-aged girls and pre-school boys having the highest mean scores and the highest proportion of children scoring in the clinical range (greater than 50% in both groups). However, there were no analyses involving both gender and abuse status so it is unclear what proportion of aggressive boys and girls had solely witnessed violence and what proportion had also been victimized. This failure to make clear distinctions among children with respect to witness and victim status is a frequent occurrence - in the Wolfe et al. (1986) study described earlier, the authors failed to specify whether any of the children had been abused themselves. Fantuzzo & Lindquist (1989) examined the literature on child witnesses of marital violence and found that the presence of child abuse was not even assessed in 75% of the articles reviewed. This finding is somewhat surprising given the fact that those children who have witnessed their mother being beaten have often themselves experienced direct physical assaults by parents (Walker, 1984; Bowker et al., 1988).

Another drawback associated with Davis & Carlson's study is the reliance on mothers to provide information about their children's aggressive behaviour. Studies have shown that the presence of marital discord and abuse in the family can bias parents' descriptions of their children's behaviour (Hughes & Barad, 1982). Nevertheless, the mother is often the sole source of information in many studies of children's reactions to family violence. Recognizing this limitation, Dodge, Bates & Pettit (1990) utilized a variety of methods to assess aggressive behaviour in their sample of 309 kindergarten children. Teachers were asked to rate children on the school version of the Child Behaviour Checklist while peers made nominations regarding which children tended to start fights, get angry and be mean toward others. Direct observations of the children's behaviour were also made. Abuse status in this study was determined from an interview with mothers regarding disciplinary practices and deliberate physical harm done to the child. Based on the mothers' responses, the researchers subjectively determined the probability that any particular child had been physically abused. This procedure resulted in 15% of the sample being classified as "harmed." On average, these children were rated by teachers and peers as significantly more aggressive than comparison children. Group differences with respect to direct observations of aggressive behaviour failed to reach statistical significance although the rate at which aggressive acts were committed was 30% higher for the harmed children. The main effect of child's abuse status on aggressive behaviour remained significant even when other variables, including severity of marital conflict as rated by interviewer, were statistically controlled.

The results of these three studies are not directly comparable since the first contrasted witnesses with controls, the second compared victim/witnesses with victims and the third compared victims to non-abused children. Such lack of consistency in group composition is not uncommon in studies of family violence sequelae. A study by Hughes (1988) was slightly better in that it included children from three of the four possible groups: children who had witnessed marital violence (n=40), children who had been abused and had also witnessed violence (n=55) and children from non-violent

families (n=83). Hughes found a significant interaction between age and abuse status with respect to the number of externalizing problems reported by mothers on the Eyberg Child Behaviour Inventory (Eyberg & Ross, 1978). Abused/witness children in the preschooler and primary school age groups displayed significantly more problems than witness and comparison children. It appears that children who receive a "double dose" of family violence, i.e., they witness violence between their parents and they also experience child abuse, show the greatest tendency to display aggressive behaviour. This relationship appears to make intuitive sense; it has been uncovered in subsequent child research by the same investigator (Hughes, Parkinson & Vargo, 1989) and it emerges again in research addressing adult witness/victims' tendencies toward marital violence (Kalmuss, 1984).

Given the considerable amount of overlap between the witness and victim groups, it seems inadequate to look at the impact of either form of family violence alone. The results would likely reflect the confounding of the variables and not the unique effect of either type of violence. In an attempt to address this issue, both marital aggression and child abuse were traced across three generations in 181 families (Dumas, Margolin & John, 1994). Current family functioning was assessed via a number of standardized questionnaires completed by parents, including the Domestic Conflict Index (Margolin, Burman, John & O'Brien, 1990; cited in Dumas et al., 1994), the Child Hostility Inventory (Kazdin, Rodgers, Colbus & Siegel, 1987) and the Child Behaviour Checklist. Unfortunately, child abuse currently occurring was not recorded. Only the potential for child abuse was assessed using a paper and pencil survey presumed to measure abusive disciplining style³ (Child Abuse Potential Inventory; Milner, 1986). Dumas and her associates found that elevated scores by parents on the Child Abuse Potential Inventory predicted aggressive behaviour in boys but not in girls. Unexpectedly, marital violence between parents was not significantly related to boys' or girls' aggression. The findings of this study are consistent with other research showing a stronger link between problem externalizing behaviours and exposure to family violence for boys (Jaffe, Wolfe, Wilson & Zak, 1985, 1986; Hughes & Barad, 1983; Hurley & Jaffe, 1990).

³The problems encountered when attempting to infer behavioural tendencies from attitudinal measures will be described in a later section.

Hughes (1986) found that among children residing in shelters, the effects of viewing violence depended on such variables as the child's gender and abuse/victim status, as well as the child's age, mother's mental health functioning, and amount of violence observed. Comparisons between children who have observed marital violence and those who have not show that serious behaviour and emotional problems are 17 times more frequent among boys who witness violence and 10 times more frequent among female witnesses (Myers & Avis, 1992). Male victims/observers are thought by some to be at greater risk for becoming violent. In fact, one researcher declared that "male children over the age of 12 are frequently, as a matter of policy, not allowed to stay in shelters for battered women because of the aggressive and violent behaviours, they have learned at home" (Hofford, 1991; p. 13). The issue of gender-linked differences in violent behaviour will be raised again with adolescent and adult samples given that Miller & Challas (1981; cited in Saunders, 1994) found that among those who

had been abused in childhood, men were almost twice as likely as women to be rated at high risk for becoming abusive parents.

In summary, the studies described in this section lead us to the same conclusion that Widom (1989b) came to when she surveyed the research linking child victimization to later aggression: abused children seem to display more aggressive behaviour than comparison children. For some children, witnessing marital violence is as detrimental to healthy adjustment as experiencing physical abuse (Jaffe, Wolfe & Wilson, 1990; Widom, 1989b). Generally though, being abused seems to lead to more severe behavioural outcomes than does witnessing violence, while the experience of both forms of violence represents the most potent predictor of aggression (Cooper, 1992). However, many of the research design flaws pointed out by Widom five years ago are present in investigations currently being conducted. Studies often involve convenience or opportunity samples of mothers and children recruited from women's shelters or social service agencies. Many investigators rely solely on descriptions of children's behaviour given by mothers who are themselves experiencing abuse, a practice which may detract from the validity of the findings. Moreover, the time between admission to the shelter/service agency and laboratory testing is often quite short. It is possible that some of the behavioural differences detected after admission are actually reflective of difficulties in adjusting to the shelter. The upcoming sections of the report address the issue of whether violent behaviour by family violence victims/witnesses persists beyond an initial adjustment phase and into adolescence and adulthood.

The evidence for a relationship between child experiences and violent behaviour in later years is mixed. For example, Widom (1991) conducted a prospective study of the criminal sequelae associated with childhood neglect and physical or sexual abuse. She compared 908 abused individuals and 667 matched controls with respect to criminal behaviour exhibited in adolescence. Those in the abused group had come to the attention of the courts between 1967 and 1971 as a result of having been neglected by parents or having been physically or sexually abused. Matches were found for about three-quarters of these children; the control group was comprised of children matched by gender, race, date of birth and hospital of birth (for children under school age) or class in elementary school (for children of school age). Widom found that abused/neglected individuals were indeed more likely than non-abused comparisons to come to the attention of justice authorities as juvenile offenders (26.0% and 16.8% arrest rates respectively). The abused and neglected adolescents also had more offences recorded and were significantly younger at the time of their first offence. Yet with respect to violent offences, there were no significant overall differences between the arrest rates of the abused and control groups (4.2% vs. 2.8%). Separate analyses by gender indicated that abused/neglected males were not significantly different from control males but surprisingly, abused/neglected females were marginally more likely than control females to have been arrested for a violent crime (1.9% vs. .3%).

In contrast, Truscott (1992) tested the cycle of violence hypothesis with an all-male sample consisting of 65 young offenders and 25 grade 10 students. Subjects were asked whether they had ever witnessed or experienced violence by their parents (50 out

of 90 replied in the affirmative) and whether they had themselves been violent with others (42 out of 90 had been). Among those who admitted to behaving violently, the majority (69%) came from a violent family. Violent adolescent behaviour was significantly associated with being physically as well as verbally aggressed against by the father⁴ but there was no relationship with maternal verbal or physical aggression nor with paternal or maternal violence witnessed. The discrepancy in the results of these two studies might be due to the use of self-report rather than official abuse records in the Truscott study. As pointed out earlier, the latter technique greatly underestimates the incidence of child abuse, which would in turn suppress between-group differences.

⁴ $R^2=.21$ and $R^2=.20$ respectively.

Some researchers have found that under-reporting of abuse incidents even occurs in self report studies (Della Femina, Yeager & Lewis, 1990; Stein & Lewis, 1992). In a follow-up investigation of formerly incarcerated juvenile offenders, 69 of the original 97 subjects were reinterviewed nine years later (see Lewis, Shanok, Pincus & Glaser, 1979). When asked about abuse suffered in childhood, 26 respondents provided information that was inconsistent with that obtained in the original study; eighteen subjects denied or minimized abuse experiences whereas the remaining eight described abuse incidents that they failed to reveal during the first study. In an effort to clarify the discrepancies, the investigators requested another interview with these 26 people. Eleven respondents agreed to be interviewed again, eight of whom had denied abuse in the follow up and 3 of whom revealed abuse for the first time. When asked to account for the discrepancies in their reports, all eleven subjects maintained that they had been abused and gave some reason for withholding the information. The explanations given for denying abuse included embarrassment, a wish to protect parents, a conscious wish to forget the past and a lack of rapport with the interviewer (Della Fernina et al., 1990). The findings of this study are especially interesting given the tendency for the general public to expect that delinquent and/or criminal populations might be motivated to exaggerate childhood abuse in an effort to elicit sympathy. In reality, the respondents' concealment of abuse experiences may have resulted in a muting of differences between groups, thus hindering the researchers' efforts to determine the criminal effects of experiencing family violence.

When considering the connection between child maltreatment and later violent criminal behaviour by adolescents, Widom (1989b) found that some research supported the violence begets violence hypothesis while other investigations did not. She concluded that although the majority of abused children do not become violent, there was a definite relationship between the two variables (Widom, 1991). A similar statement would characterize the studies summarized in this report. Furthermore, examination of the studies reviewed here reveals that methodological problems continue to plague the research, impacting on the interpretation of findings. One serious problem with investigations of adolescents' aggressive behaviour is that they often rely on official records to identify violent delinquent behaviour. It is possible that the effects of childhood exposure to violence are thus confounded with the effects of processing by the justice system.

Recently, it has been recognized that a phenomenon analogous to spousal violence is not entirely uncommon among adolescent dating couples (Roscoe & Callahan, 1985; O'Keeffe, Brockopp & Chew, 1986). Research on courtship violence is important because it may provide glimpses of interaction patterns that are carried forward into adult intimate relationships (Makepeace, 1981). Carlson (1990) recruited adolescents aged 13 to 18 years from 4 residential treatment centres and a youth shelter and asked about violence directed at dating partners. Respondents from non-violent families were compared with those who had witnessed marital violence (almost 1/2 reported seeing their fathers hit their mothers, 26% saw mothers hit fathers). Counter to expectation, no differences were found between witnesses and non-witnesses with respect to attitudes about the appropriateness of using violence against a boyfriend/girlfriend or in the actual use of violence against a dating partner. In short, the levels of dating violence reported were similar to those found in research with non-clinical samples of high school students. However, estimates suggest that those levels are actually fairly high, with one quarter to one half of high school students having experienced an abusive relationship⁵ (Myers Avis, 1992; Bergman, 1992).

⁵Although no national data exists regarding the extent of physical violence in high school dating relationships, a recent national survey conducted with Canadian university and college students indicates that 22.3% of women had been physically assaulted by a partner within the last 12 months, while 35% had been so victimized in the years since they left high school (DeKeseredy & Kelly, 1993).

Carlson proposed that the adolescents in her sample had experienced numerous other stressors in their lives which were not accounted for, e.g., physical abuse, sexual abuse, divorce and/or substance abuse by one or both parents, possibly overshadowing the effect of witnessing violence. In order to test this hypothesis, she conducted another study with the same sample, this time differentiating between 4 groups: those who had only experienced child abuse (n=6), those who had only witnessed marital violence (n=12), those who had both experienced abuse and witnessed marital violence (n=50) and those who had experienced neither type of abuse (n=25; Carlson, 1991). Composite measures were created from a small number of open-ended questions tapping approval of violence and use of violence. There was a main effect of gender wherein males were more likely to approve of violence. Males also had marginally higher scores for use of violence. However, there was no significant effect related to abuse or witness status, even when gender was statistically controlled. This finding is surprising given earlier studies demonstrating that teens involved in dating violence had higher rates of maltreatment in childhood (Roscoe & Callahan, 1985; Reuteran & Burcky, 1989).

Carlson listed a number of possible reasons for her non-significant findings, including the dearth of information on the nature and extent of the violence that subjects experienced/ witnessed and the confounding of family violence variables with other potential risk factors. Additional methodological problems that Carlson did not consider were the unequal (and small) cell sizes and the unacceptably low internal consistencies achieved for the violence "scales" she constructed ($\alpha=.56$ and $\alpha=.64$ for approval of violence and use of violence respectively). Both these factors could have obscured significant relationships. Studies using a scale with better psychometric properties (Child Witness to Violence Interview; Jaffe et al., 1989) have indicated that children

exposed to wife battering are indeed more likely to condone violence as a means of resolving conflict in interpersonal relationships. Unfortunately, no studies have attempted to follow up this effect into adolescence. A recent summary of the research describing long-term consequences of physical abuse revealed that the bulk of adolescent studies dealt with the question of delinquency⁶ rather than dating relationships (Malinosky-Rummell & Hansen, 1993).

⁶The majority of these studies have already been reviewed by Widom (1989b).



Violence in general

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The results of studies conducted on generalized violent tendencies by abuse victims/ witnesses are sometimes contradictory. For example, the results of a study by Forsstrom-Cohen & Rosenbaum (1985), utilizing a paper and pencil measure of aggression, are quite different from those obtained when aggression was measured via arrests for violent crime (Widom, 1989a). In the first study, undergraduate students were classified as belonging to one of three types of families based on their reports of the quality of marital interactions viewed in childhood: 44 had witnessed parental violence, 43 viewed discord between parents that stopped short of physical violence, and 77 described their parents' marital relationship as satisfying. Within the witness group, the mean amount of time that had passed since the last violent parental episode was between 4 to 7 years - thus the study was presumed to assess the long term effects of viewing violence. In an effort to isolate the effects of witnessing violence, students who reported that they had been physically abused by parents were excluded from the sample. Aggressive behaviour tendencies were measured via the Buss-Durkee Inventory (Buss & Durkee, 1957). A significant gender by relationship interaction was found wherein women who viewed violence between their parents were more aggressive than either of the other two groups. Surprisingly, there was no discernible relationship between witness status and aggression among male subjects.

In the second study, Widom (1989a) found that victimized males were in fact more likely to be violent. She followed the previously described sample of abused and neglected individuals into adulthood in order to assess the relationship between childhood victimization and adult criminal behaviour. As mentioned earlier, the sample in her longitudinal study was identified through their involvement in court cases involving neglect and/or abuse. Overall, the abused and neglected sample was more likely than the control group to have an adult criminal record (28.6% vs. 21.1%). With respect to violent crime in particular, abuse victims were marginally more likely to have been arrested for a violent offence than were non-abused controls (8.5% vs. 6.1%). When the relationship was reanalysed after excluding those individuals without a "match" in the control group, the differences between the two groups did reach statistical significance (Widom, 1989c). In a reversal of the pattern found during adolescence, the relationship between abuse status and later violent criminal behaviour was largely attributable to differences between abused and control males (15.6% vs. 10.2% arrest rate respectively); the differences between abused and control group females were not significant. The discrepancy in the results of these two investigations is possibly due to

the different ways in which "aggression" was measured. The 66-item Buss-Durkee Inventory is used to obtain self-reports on a variety of hostility-related behaviours. However, only 10 of the items directly address the respondents' inclinations toward physical violence. Widom's criterion for aggression was much more narrow, i.e., the prevalence of violent behaviour was determined via documented police contact.

Yet despite its potentially limited usefulness in assessing the degree to which "violence begets [physical] violence," the Buss-Durkee Inventory has nevertheless proven valuable in identifying different types of violent individuals. To illustrate, there has been some debate in the literature as to the degree of overlap between violence directed against non-family members and family-directed violence. The Buss-Durkee has been used in researchers' attempts to determine whether family violence perpetrators are "violent men or violent husbands" (e.g., Cadsky & Crawford, 1988).

This same question has been addressed using a self-report approach; Kandel-Englander (1992) assessed the extent to which men who are violent outside the family are also violent with partners and/or children using Straus' 1985 national probability sample. Although there was no information provided regarding what proportion of this sample had witnessed and/or experienced violence in their family of origin, those men who admitted to having been violent (15% of total sample) were inclined to restrict their violence to one type of victim. Within the violent group, 23% were violent against non-family members only and 67% were batterers only. Only 10% had aggressed against both their wives and non-family members; these men were labelled "pan-violent".

This estimate of pan-violence is considerably lower than that obtained in previous studies using reports of family violence obtained from clinical samples of battered women. Nevertheless, the author admitted that the study's emphasis on non-incarcerated men may have led to underestimation of the size of both the pan-violent and the non-family violent group. Men who were violent against non-family members would be more likely to have been incarcerated and thus excluded from consideration in her study. In a study that specifically focused on an offender sample, Dutton and Hart (1992b) found that the co-occurrence of family-directed and non-family violence was considerably higher; 79% of the men whose files contained references to perpetration of



family violence had also committed some form of stranger/non-family violence.

Violence directed at partners

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Detailed analyses of risk markers for spousal abuse indicate that the association between *experiencing* child abuse and later perpetration of spousal abuse is somewhat inconsistent but the *observation* of marital violence in childhood has reliably emerged as a risk marker among men for violence against their partners (Hotelling & Sugarman, 1986; Tolman & Bennett, 1990). This latter relationship is supported by data from the recent Statistics Canada survey (1993). Women whose partners grew up with a violent father were three times as likely as women with nonviolent fathers-in-law to be assaulted by their partners. The association between men's viewing violence and battering is also apparent in Rouse's (1984) survey of 79 males regarding violence received and observed during childhood and the relationship to battering. Curiously, the measure used to assess violence in the marital relationship, the Conflict Tactics Scale

(CTS), was sent only to a subsample (n=55). No explanation was given for this decision. Nevertheless, the observation of violence in childhood was strongly related to CTS scores in adulthood.⁷ The effect of victimization on CTS scores was mediated by the effect of observing violence; the correlation between victimization and CTS scores became negative after observation was statistically controlled.⁸ This result suggests that being the target of violent acts in childhood reduces the tendency to use abusive tactics with a female partner among witnesses to violence. Still, the author warns that there are limitations in the study that serve to qualify the results obtained: the wording of the items dealing with violence made reference to very mild types of exposure, there was no information available regarding the frequency of exposure, and the context in which violence occurred was not specified (i.e. it was not necessarily parent to child violence).

⁷r=.48

⁸r=.25

The link between witnessing marital violence and subsequent violence in the adult family is further supported by the results of Stith and Farley's (1993) study, designed to generate a predictive model of male spousal violence. The sample was comprised of a group of men participating in a battering treatment program and another group of men involved in a program for alcoholism. Using path analysis, the authors found that approval of marital violence, measured using a modification of the Inventory of Beliefs about Wife Beating (Saunders, Lynch, Grayson & Linz, 1987), was one of two variables having a direct effect on the use of severe marital violence (traditional sex-role attitudes also contributed to wife assault). Observation of marital violence in childhood had a further indirect effect on marital violence via its positive effect on approval of violence and its negative effects on self-esteem and egalitarian attitudes. However, given the sample used in the development of this model, Stith and Farley cautioned that it might only be applicable to men who were in treatment programs.

The importance of witnessing violence in the family of origin can also be seen in research conducted with offender samples. The results of studies using offenders also highlight the important role that experiencing violence in childhood plays in the perpetration of family violence in adulthood (perhaps more so than do studies conducted with the general population). Dutton & Hart (1992b) conducted a file- review of the records belonging to 597 federally incarcerated male offenders in CSC's Pacific Region. Regardless of the type of crime for which they were currently incarcerated, these men were categorized according to the violent acts they had committed and the target of those violent acts (stranger or family member). Files were searched for references to charges or convictions for offences against persons or references to allegations of violence reported or investigated but not resulting in charges. Using this system, 74 men were classified as non-violent, 346 as violent with strangers or acquaintances only and 177 as violent with family members (included spouse- and child-directed violence). The extent to which the offenders had been victimized in childhood was also assessed via reports in the files of neglect, physical or sexual abuse or inter-parental violence. Forty-one percent of offenders had been victimized in some way during childhood; 31.4% had been physically abused. The investigators found that men who were violent in their adult families were significantly more likely to have been physically abused in their family of origin (41.4%) than were inmates who had records of being violent with non-family members only (29.9%) and non-violent offenders (14.9%).

The family violent group was also more likely to have witnessed abuse in their family of origin (20.3%) than were Stranger Violence offenders (11%) or non-violent offenders (5.4%).

In subsequent analyses with a similar sample, Dutton & Hart (1992a) made further subdivisions within the family violence and stranger violence groups by differentiating between physically and sexually violent crimes. Finer distinctions were also made with respect to type of abuse suffered in childhood, i.e. physical abuse, sexual abuse and witnessing marital violence. The results indicated that various types of abuse were associated with specific patterns of adult offending. The men tended to commit the same type of crime that had been perpetrated against them in childhood, lending support to the cycle of violence hypothesis within an offender population. Of the men who had been physically abused as children, 65% committed crimes of physical aggression in adulthood and of the men who had been sexually abused, 58% later committed sexual crimes. The experience of physical abuse in childhood increased the odds for physical violence in the adult family by 5 times and the odds of stranger-directed violence twofold.

In their national study of offenders, Robinson & Taylor (1994) found results that echoed Dutton & Hart's regional findings with respect to the proportion of men having family violence histories. Almost half (46.2%) had been victimized in childhood, experiencing or witnessing some form of family violence; 24.6% had been physically abused whereas 23.8% had witnessed the abuse of parents or siblings. As Widom (1989b) would predict, not all offenders who had official histories of abuse showed evidence of being perpetrators. Nevertheless, those who were victims or witnesses to abuse were almost twice as likely to be violent with family members than those who were not. Of the files containing references to violence in the family of origin, 42.4% also contained evidence of violence within the adult family (23.9% of non-victimized offenders' files had references to family violence perpetrated). Looking at partner abuse in particular, the base rate among non-victimized offenders was 22.6% whereas 33.7% of victimized offenders were abusive with their wives. Witnessing abuse appeared to be the most important family of origin correlate of partner abuse.

Other studies using non-incarcerated samples have underscored the association between childhood abuse and later marital violence. Marshall & Rose (1988) surveyed a sample of 330 undergraduate witnesses and victims of violence in childhood using a modified version of the Conflict Tactics Scale. Forty percent reported that they saw their fathers hit their mothers, 40.6% reported seeing mothers hit fathers and 76.7% received violence at the hands of their parents. Violence by and against the respondent in adult relationships was also assessed. Seventy-five percent of the sample reported that they had expressed violence in an intimate relationship while 64% received violence from a partner. The results of the study indicated that greater violence in any particular relationship was associated with more violence in all of the other relationships. Significant correlations emerged between expressing violence in adulthood and being abused as a child, expressing violence and viewing father to mother violence, and expressing violence and witnessing mother to father violence. Experiencing child abuse also predicted expressed violence for men and received violence for women.

Focusing specifically on batterers, Caesar (1988) studied a group of 44 men in therapy for discordant marital relationships. Within this sample, 26 had Conflict Tactics

Scale (Straus, 1979) scores that identified them as batterers. Batterers were more likely to report having been abused by one or both parents (38% vs. 11%) and to have been disciplined harshly with a switch, belt, etc. (58% vs. 31%). Overall, batterers were more likely to have been exposed to some type of family violence, either witnessing parental violence or having been themselves abused (62% vs. 28%), and to get a "double dose" of family violence (27% vs. 0%). Furthermore, among men with a childhood history of violence, the batterers were more likely to be involved in marital strife and also more likely than the non-violent group to idealize the violent parent or rationalize his behaviour. This latter result is consistent with findings obtained by attachment researchers in the context of child abuse, i.e., abusive mothers who were themselves victimized tended to idealize their past (Egeland, 1993; Oliver, 1993).

The studies reviewed thus far deal with violence inflicted by those victimized in childhood, however, a great deal of research effort has also been expended on exploring the so-called "cycle of victimization." In their 3-generation study of marital violence and child abuse (described earlier), Dumas and her associates (1994) found that not only was viewing marital aggression in childhood related to husbands' aggression against their wives, witnessing marital aggression in the family of origin was significantly related to wives' victimization by husbands. These findings appear to suggest that women who have experienced family violence in the past may be prone to choose abusive partners. The "cycle of victimization" represents an interpretation of events that is controversial in the family violence literature because it connotes passivity and helplessness, even an acceptance of violence by the battered women. Despite the controversy, Cappell & Heiner (1990) explicitly framed their results relating childhood witnessing and victimization to later spousal and child abuse in terms of an "intergenerational transmission of vulnerability." Straus' national probability sample (1980) was used; respondents reported on the frequency of having been hit by either parent during their teens and of witnessing violence by one parent against the other. The Conflict Tactics Scale was used to assess current family relations between spouses. Cappell and Heiner found that marital violence in family of origin increased the likelihood that a respondent (male or female) was the target of aggression from his/her spouse.

The relationship between witnessing violence and being battered found in these two investigations coincide with the conclusions drawn in an extensive review of the risk markers for husband to wife violence (Hotaling & Sugarman, 1986). More than forty female partner characteristics were examined but only one, witnessing violence between parents in the family of origin, was consistently associated with being battered. Although the female partner's characteristics were of limited value for explaining marital violence, nine of 38 abuser characteristics and five couple-level variables were identified as consistent risk markers for husband to wife violence. Given this situation, it appears that researchers' efforts would be better spent concentrating on perpetrators of



family violence than on the "cycle of victimization."

Violence directed at children in the adult family

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In her longitudinal study of abused individuals, Widom (1989c) found no significant differences between abused group and controls with respect to arrests for child abuse. But as alluded to earlier, child abuse is an underreported crime. Furthermore, arrests for child abuse are rare, therefore these results are not very compelling. In another study pertaining to family violence by offenders, the Virginia Department of Corrections (1983) surveyed a random sample of inmates ($n=202$) regarding their childhood history of abuse and regarding child abuse perpetrated by them. One-quarter (25.2%) reported having been abused in childhood. However, it was not possible to calculate the rate of intergenerational transmission since only one offender in this sample admitted to having abused his own child. Further checking through the records of all 9,131 inmates incarcerated in Virginia at the time showed that 240 (2.7%) were identified as having been charged with or suspected of child abuse. Because a substantial proportion of the offenders did not have children (23.2%), the actual percentage of child abusers in this sample is even higher. In fact, Robinson & Taylor's (1994) research with offenders indicates that the proportion of victimized individuals who go on to abuse their own children is quite a bit higher than the Virginia data would suggest. Twenty percent of offenders with histories of witnessing or experiencing abuse had records of perpetrating child abuse in their files compared to 6.4% of the non-abused men.

Turning to the general population, it seems that in recent years there has been a move toward assessing child abuse potential rather than actual occurrences of abuse. This trend seems to be related to a change in research focus from clinical samples to samples drawn from the larger community. Because of mandatory child abuse reporting laws, investigators increasingly seem to be turning to measures of potential in the hopes that respondents will respond more truthfully to the hypothetical scenarios presented in such instruments than they would to direct questions about abuse perpetrated. In one such study of abuse potential, Zaidi, Knutson & Mehm (1989) utilized the Assessing Environments III Scale (AEIII; Berger, Knutson, Mehm & Perkins, 1988) to uncover the punishment history of 86 undergraduates. Forty-nine had severe physical punishment histories while 37 had histories involving only mild forms of punishment. The Analog Parenting Task (APT; Larrance & Twentyman, 1983) was used to assess the disciplinary responses that students endorsed in hypothetical child discipline scenarios. Punishment history was significantly related to choice of discipline but only up to a point. The severely punished group was more likely to respond to an initial incident of child misbehaviour with potentially injurious discipline, however no group differences emerged if misbehaviour was prolonged.

Another inventory that appears to be receiving a great deal of use is the Child Abuse Potential Inventory. Dumas and her associates (1994) found that fathers' scores on this measure were related to a history of marital aggression between their own parents (i.e., second generation males' potential for abusing their children was linked to viewing marital aggression between their own parents (child's grandparents)). Eleven percent of the variance in child abuse potential was explained. This result is in line with the notion that the impact of family violence is greater on males. However, there was no significant relationship between violence in mothers' family of origin and their child abuse potential. This finding is in contrast to the results obtained when Cappell & Heiner (1990) assessed the occurrence of child abuse rather than abuse potential; they found

that marital violence in the mother's family of origin predicted child-directed aggression by the mother.

Milner, Robertson & Rogers (1990) asked undergraduate students about their childhood history of receiving and observing physical abuse and compared these responses to scores obtained on the Child Abuse Potential Inventory. A substantial proportion (21.1%) had been physically abused to the point of injury or had observed acts that resulted in injury (14.7%). The correlation between abuse received and/or observed and inventory scores was moderate⁹. Respondents were then divided into 4 groups based on the researchers' determinations of the severity of abuse received. The "moderate" and "severe" groups had significantly higher scores on the CAP than did the "no abuse" and "mild" groups, a finding that provides support for the cycle of violence hypothesis. Taken together with the Zaidi et al. (1989) study, these results suggest that potential for child abuse can be measured even before an individual becomes a parent. Earlier studies conducted by the developers of the Child Abuse Potential Inventory seem to support this view.

⁹ $r=0.30$

Milner, Gold, Ayoub & Jacewitz (1984) assessed 190 parents from the At Risk Parent-Child program using the Child Abuse Potential Inventory -interestingly, 90% of the clients assessed were female, indicative of a possible bias toward the study of abusive mothers. Assessment were conducted when the children were 6 months old or less and it was established that no abuse had occurred yet in these families. Unfortunately, no information was provided regarding the childhood abuse history of the "at risk" parents. Child abuse allegations were investigated for a period of 6 months following the initial testing sessions. One hundred and three parents had scored above the designated cut-off score for abuse whereas there were 42 confirmed reports of child maltreatment. Because the program included a therapeutic component, the authors felt that individuals who obtained elevated scores but no abuse allegation might be considered successfully treated rather than "inventory prediction errors." The correlation between abuse scores and subsequent confirmed reports was $r=.34$, thought by the authors to be a conservative estimate of the association. Retaining the focus on female perpetrators, Caliso & Milner (1994) studied 26 abusive mothers with a self-reported history of childhood abuse; 26 non abusive mothers with a history of being abused and 26 non abusive mothers with no history of violence. Using discriminate analysis techniques, 84.6% of abusers and 90.4% of non abusers were correctly identified.

The developers' research on the Child Abuse Potential Inventory seem to indicate that this is a very promising measure. However, prior research has shown that the connection between attitude and behaviour is not always direct. Dibble & Straus (1980) carried out research on attitude- behaviour consistency with respect to how "necessary," "normal" and "good" it was to slap a 12-year- old. A large majority (81.5%) expressed at least some endorsement for one or more of the parental violence attitudes and of these respondents, 72% had actually used violence against their children. The surprising finding was that even among those who did not endorse attitudes condoning violence, 37% had engaged in violence against their children. Both mothers and fathers were more likely to be violent with their children when their partners had used physical punishment on their children. In short, parents' behaviour tended to be in agreement with their spouse's behaviour even if it was in disagreement with their own attitudes. It

appears that more investigations need to be conducted with measures of abuse potential before firm conclusions can be drawn about how this research fits in to the "cycle of violence" literature.



Senior abuse

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The problem of senior abuse is an area within family violence that is receiving increasing attention. Research in this area is still in the early stages therefore a detailed overview will not be presented here. However the topic is relevant to this review because in some cases, former witnesses and/or victims of abuse may become violent toward parents when the dynamics of the parent-child relationship change. For example, Carlson's (1990) study of adolescent witnesses to family violence revealed what might be a precursor of senior abuse. Boys from violent homes had a greater tendency to hit their mothers than did other boys although the difference was of marginal significance. None of the remaining relationships between witnessing marital aggression and use of violence against parents reached statistical significance; interpretation of the results may have been complicated by the fact that respondents' abuse and witness status were confounded -one-third of the witnesses to marital aggression were also victims of child abuse.

Other family violence researchers have speculated about the relationship between childhood abuse received and later senior abuse perpetrated. Johnson (1979; cited in Kashani et al., 1992) put forth a theory suggesting that the abused child, when an adult, abuses his or her parent in return. Schlesinger (1984; cited in Appleford, 1989) says that there is a 50% chance that abused children will themselves abuse their dependent parents¹⁰.

¹⁰Still, based on the limited information available on this form of family violence, it appears that in the majority of cases, senior abuse is "wife abuse grown old" (National Clearinghouse on Family Violence fact sheet, 1992).

The purpose of this report was to provide an update on the cycle of violence research published in recent years. Research conducted with children indicates that children who are both witnesses and victims of abuse have more severe aggressive behavioural outcomes than do those who are solely victims, who in turn have more difficulties than those who have witnessed violence but have never been victimized. Investigations conducted with adolescents and adults in the general population suggest that both witnessing and experiencing family violence in childhood are associated with violence in the adult family. Research with offenders indicates that a very high proportion of this population have a history of witnessing violence or being directly victimized. File review studies reveal that an abuse history is in turn related to family-directed and stranger directed violence that comes to the attention of authorities.

It is interesting to note that despite Widom's (1989b) call for prospective designs in research addressing the "violence begets violence" hypothesis, the majority of the studies reviewed in this report are retrospective in nature. Indeed, many of the other methodological shortcomings pointed out by Widom can be observed in articles

published in the five years since her report became available to the academic community at large¹¹. Based on the few prospective studies that do exist, numerous reviewers maintain that the majority of abused children do not continue the cycle of violence as adults. Even in childhood, the proportion of children who exhibit clinical levels of emotional/behavioural problems as a result of living with family violence is lower than one might expect: about one-third of boys and one-fifth of girls are in the clinical range (Cooper, 1992). As discussed earlier, estimates of the proportion of abused children who then go on abuse their own offspring are around 30%. Witnessing violence between parents is thought to be only modestly related to marital aggression in the second generation; about 16-17% of witnesses report aggression in their own intimate relationships (Widom, 1989b)¹². Nevertheless, a number of the studies described in this report indicate that the proportion of variance in violent behaviour accounted for by abuse and/or witness status is significant, thus further research on protective factors and potentially helpful treatment interventions is required.

¹¹Given the lag time between data collection and publication of results, it is probably the case that many studies were designed and completed in the years prior to Widom's landmark review yet published in the years that followed. Perhaps an increase in the number of studies that incorporate Widom's design recommendations will be seen in the near future.

¹²It is difficult to generate corresponding figures for the relationship between witnessing violence and later perpetration of child abuse and between experiencing abuse and later partner abuse since none of the prospective studies directly addressed these questions.

Although few studies specifically address the issue of intergenerational transmission of violence among offenders, the available research suggests that the overlap between childhood victimization and later violent behaviour in this population is actually quite substantial (Dutton & Hart, 1992a, 1992b; Robinson & Taylor, 1994). As explained earlier, numerous characteristics of incarcerated populations are mentioned in the literature discussing the attributes of batterers (Dutton & Hart, 1992b). For example, Hotaling and Sugarman (1986) discovered in their extensive review of the risk markers for husband to wife violence that witnessing violence during childhood or adolescence was a consistent risk marker for battering, as was alcohol use, low assertiveness, low income and educational level and partner-directed sexual aggression. A criminal arrest record was also (inconsistently) associated with marital aggression. This correspondence between criminal and family abuser profiles reinforces the importance of making treatment programs available to offenders. The Correctional Service of Canada has already taken steps to provide programming for offenders who have a history of wife assault and/or parenting problems. Given the findings of recent file review studies, it is important that the programs offered directly address the concept of the cycle of violence.

The next logical steps for future research on the cycle of violence include studies exploring the effect of amount of violence witnessed (Jaffe, Wolfe & Wilson, 1990; Hughes, 1988), more prospective studies following victimized children into adulthood (Widom, 1989b), and studies of the factors that may prevent individuals from repeating the abuse that they have experienced and/or witnessed (e.g. "protective factors;" Garmezy, 1981).

Achenbach, T. & Edelbrock, C. S. (1981). Behaviour problems and competencies reported by parents of normal and disturbed children aged 4 through 16. Monographs of the Society for Research in Child Development, 46 (Serial No. 188).

Appleford, B. (1989). Family Violence Review: Prevention and Treatment of Abusive Behaviour. Ottawa: Correctional Service of Canada.

Berger, A.M., Knutson, J.F., Mehm, J.G. & Perkins, K.A. (1988). The self-report of punitive childhood experiences of young adults and adolescents. Child Abuse and Neglect, 12, 251-262.

Bergman, L. (1992). Dating violence among high school students. Social Work, 37, 21-27.

Bowker, L.H., Arbitell, M. & McFerron, J.R. (1988). On the relationship between wife beating and child abuse. In K. Yllo & M. Bograd (Eds.), Feminist Perspectives on Wife Abuse (pp. 158-174). Beverly Hills, CA: Sage.

Buss, A.H. & Durkee, A. (1957). An inventory for assessing different kinds of hostility. Journal of Consulting Psychology, 21, 343-349.

Caesar, P.L. (1988). Exposure to violence in the families-of- origin among wife-abusers and maritally nonviolent men. Violence and Victims, 3, 49-63.

Caliso, J.A. & Milner, J. S. (1994). Childhood physical abuse, childhood social support, and adult child abuse potential. Journal of Interpersonal Violence, 9, 27-44.

Canadian Centre for Justice Statistics (1994). Family Violence in Canada. Product No. 89-5410XPE.

Cappell, C. & Heiner, R.B. (1990). The intergenerational transmission of family aggression. Journal of Family Violence, 5, 135-152.

Carlson, B.E. (1990). Adolescent observers of marital violence. Journal of Family Violence, 5 285-299.

Carlson, B.E. (1991). Outcomes of physical abuse and observation of marital violence among adolescents in placement. Journal of Interpersonal Violence, 6, 526-534.

Christopoulos, C., Cohn, D.A., Shaw, D.S., Joyce, S., Sullivan- Hanson, J., Kraft, S. & Emery, R.E. (1987). Children of abused women: I. Adjustment at time of shelter residence. Journal of Marriage and the Family, 49, 611-619.

Cooper, M. (1992). Current and Future Effects on Children Witnessing Parental Violence: An Overview and Annotated Bibliography Series on Interpersonal Violence Report No. 1. Vancouver: B.C. Institute on Family Violence.

Davis, L.V. & Carlson, B.E. (1987). Observation of spouse abuse. Journal of Interpersonal Violence, 2(3) , 278- 291.

DeKeseredy, W. & Kelly, K. (1993). The incidence and prevalence of woman abuse in Canadian university and college dating relationships. Canadian Journal of Sociology, 18, 137-159.

Della Femina, D., Yeager, C.A. & Lewis, D.O. (1990). Child abuse: Adolescent records vs. adult recall. Child Abuse & Neglect, 14., 227-231.

Dibble, U. & Straus, M.A. (1980). Some social structure determinants of inconsistency between attitudes and behaviour: The case of family violence. Journal of Marriage and the Family, 42, 71-80.

Dodge, K.A., Bates, J.E. & Pettit, G. S. (1990). Mechanisms in the cycle of violence. Science, 250, 1678-1683.

Doumas, D., Margolin, G. & John, R. S. (1994). The intergenerational transmission of aggression across three generations. Journal of Family Violence, 9 , 157-175.

Dutton, D. G. (1987). The criminal justice response to wife assault. Law and Human Behaviour, 11, 189-206.

Dutton, D. G. & Hart, S.D. (1992a). Evidence for long-term, specific effects of childhood abuse and neglect on criminal behavior in men. International Journal of Offender Therapy and Comparative Criminology, 36, 129-137.

Dutton, D. G. & Hart, S.D. (1992b). Risk markers for family violence in a federally incarcerated population. International Journal of Law and Psychiatry, 15, 101-112.

Egeland, B. (1993). A history of abuse is a major risk factor for abusing the next generation. In R.J. Gelles & D.R. Loseke (Eds.) Current Controversies on Family Violence (pp. 209- 221). Newbury Park, CA: Sage.

Eron, L.D., Huesmann, L.R. & Zelli, A. (1991). The role of parental variables in the learning of aggression. In D.J. Pepler & K.H. Rubin (Eds.), The Development and Treatment of Childhood Aggression, (pp. 169-188). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Eyberg, S.M. & Ross, A.W. (1978). Assessment of child behavior problems: The validation of a new inventory. Journal of Clinical Child Psychology, 7, 113-116.

Fantuzzo, J.W. & Lindquist, C.U. (1989). The effects of observing conjugal violence on children: A review and analysis of research methodology. Journal of Family Violence, 4, 77-94.

Farrington, D.P. (1991). Childhood aggression and adult violence: Early precursors and later-life outcomes. In D.J. Pepler & K.H. Rubin (Eds.), The Development and Treatment of Childhood Aggression (pp. 5-29). Hillsdale, NJ: Lawrence Erlbaum Associates, Inc.

Forsstrom-Cohen, B. & Rosenbaum, A. (1985). The effects of parental marital violence on young adults: An exploratory investigation. Journal of Marriage and the Family 467-472.

Garmezy, N. (1981). Children under stress: Perspectives on antecedents and correlates of vulnerability and resistance to psychopathology. In A.I. Rabin, J. Aronoff, A.M. Barclay & R.A. Zucker (Eds.) Further Explorations in Personality (pp. 196- 269). New York: Wiley.

Goodman, G. S. & Rosenberg, M.S. (1987). The child witness to family violence: Clinical and legal considerations. In Daniel J. Sonkin (Ed.), Domestic Violence on Trial (pp. 97-126). New York: Springer Publishing Company.

Hofford, M. (1991). Family violence: Challenging cases for probation officers. Federal Probation, 55(3), 12-17.

Hotaling, G.T. & Sugarman, D.B. (1986). An analysis of risk markers in husband to wife violence: The current state of knowledge. Violence and Victims, 1, 101-124.

Hughes, H.M. (1986). Research with children in shelters: Implications for clinical services. Children Today, 15(2) 21-25.

Hughes, H.M. (1988). Psychological and behavioral correlates of family violence in child witnesses and victims. American Journal of Orthopsychiatry, 58 77-90.

Hughes, H.M. & Barad, S. J. (1982). Changes in the psychological functioning of children in a battered women's shelter: A pilot study. Victimology, 7, 60-68.

Hughes, H.M. & Barad, S.J. (1983). Psychological functioning of children in a battered women's clinic. American Journal of Orthopsychiatry, 53, 525-531.

Hughes, H.M., Parkinson, D. & Vargo, M. (1989). Witnessing spouse abuse and experiencing physical abuse: A "Double Whammy"? Journal of Family Violence, 4, 197-209.

Hurley, D.J. & Jaffe, P. (1990). Children's observations of violence: II. Clinical implications for children's mental health professionals. Canadian Journal of Psychiatry, 35, 471-476.

Jaffe, P. G., Hurley, D.J. & Wolfe, D. (1990). Children's observations of violence: I. Critical issues in child development and intervention planning. Canadian Journal of Psychiatry, 35, 466-470.

Jaffe, P., Wilson, S.K. & Wolfe, D. (1988). Specific assessment and intervention strategies for children exposed to wife battering: Preliminary empirical investigations. Canadian Journal of Community Mental Health, 7, 157-163.

Jaffe, P., Wolfe, D., Wilson, S. & Zak, L. (1985). Critical issues in the assessment of children's adjustment to witnessing family violence. Canada's Mental Health, 33, 15-19.

Jaffe, P., Wolfe, D., Wilson, S. & Zak, L. (1986). Family violence and child adjustment: A comparative analysis of girls' and boys' behavioral symptoms. American Journal of Psychiatry, 143, 74-77.

Jaffe, P., Wolfe, D. & Wilson, S. (1990). Children of Battered Women. Newbury Park, CA: Sage.

Kalmuss, D. (1984). The intergenerational transmission of marital aggression. Journal of Marriage and the Family, 11- 19.

Kandel-Englander, E. (1992). Wife battering and violence outside the family. Journal of Interpersonal Violence, 7, 462-470.

Kashani, J.H., Daniel, A.E., Dandoy, A. C. & Holcomb, W.R. (1992). Family violence: Impact on Children. Journal of the American Academy of Child and Adolescent Psychiatry, 31, 181-189.

Kaufman, J. & Zigler, E. (1987). Do abused children become abusive parents? American Journal of Orthopsychiatry, 57, 186-192.

Kaufman, J. & Zigler, E. (1993). The intergenerational transmission of abuse is overstated. In R.J. Gelles & D.R. Loseke (Eds.) Current Controversies on Family Violence (pp. 209-221). Newbury ParK CA: Sage.

Kazdin, A.E., Rodgers, A., Colbus, D. & Siegel, T. (1987). Children's Hostility Inventory: Measurement of aggression and hostility in psychiatric inpatient children. Journal of Clinical Child Psychology, 16, 320-328.

Larrance, D.T. & Twentyman, C.T. (1983). Maternal attributions and child abuse. Journal of Abnormal Psychology, 92, 449-457.

Leighton, B. (1989). Spousal Abuse in Metropolitan Toronto: Research Report on the Response of the Criminal Justice System (Report No. 1989-02). Ottawa: Solicitor General of Canada.

Lewis, D. O., Shanok, S. S., Pincus, J.H. & Glaser, G.H. (1979). Violent juvenile delinquents. American Academy of Child Psychiatry, 18, 307-319.

Makepeace, J.M. (1981). Courtship violence among college students. Family Relations, 30, 97-102.

Malinosky-Rummell, R. & Hansen, D.J. (1993). Long-term consequences of childhood physical abuse. Psychological Bulletin, 114, 68-79.

Marshall, L.L. & Rose, P. (1988). Family of origin violence and courtship abuse. Journal of Counselling and Development, 66, 414-418.

McCord, J. (1983). A forty year perspective on effects of child abuse and neglect. Child Abuse & Neglect, 7, 265- 270.

Miller, A. (1990). Banished knowledge: Facing childhood injuries. New York: Anchor Books.

Milner, J.S., Gold, R.G., Ayoub, C.Y & Jacewitz, M.M. (1984). Predictive validity of the Child Abuse Potential Inventory. Journal of Consulting and Clinical Psychology, 52, 879-884.

Milner, J.S., Robertson, K.R. & Rogers, D.L. (1990). Childhood history of abuse and adult child abuse potential. Journal of Family Violence 5, 15-34.

Myers Avis, J. (1992). Where are all the family therapists: Abuse and violence within families and family therapy's response. Journal of Marital and Family Therapy, 18, 225-232.

O'Keeffe, N.K., Brockopp, K. & Chew, E. (1986). Teen dating violence. Social Work, 31, 465-468.

Oliver, J.E. (1993). Intergenerational transmission of child abuse: Rates, research, and clinical implications. American Journal of Psychiatry, 150, 1315-1324.

Parke, R. & Collmer, C. (1975). Child abuse: An interdisciplinary review. In E.M. Hetherington (Ed.), Review of Child Development Research, Vol. 5. Chicago: Chicago University Press.

Reuterman, N.A. & Burcky, W.D. (1989). Dating violence in high school: A profile of the victims. Psychology: A Journal of Human Behavior, 26, 1-9.

Robinson, D. & Taylor, J. (1994). The Incidence of Family Violence Perpetrated by Federal Offenders: A File Review Study. Correctional Service of Canada, Ottawa.

Roscoe, B. & Callahan, J.E. (1985). Adolescent's self-report of violence in families and dating relationships. Adolescence, 20, 545-553.

Rosenberg, M.S. & Rossman, B.B. (1990). The child witness to marital violence. In Robert T. Ammerman & Michel Hersen (Eds.), Treatment of Family Violence (pp. 183-210). Toronto: John Wiley & Sons, Inc.

Rouse, L.P. (1984). Models, self-esteem, and locus of control as factors contributing to spouse abuse. Victimology, 9, 130-141.

Saunders, D.G., Lynch, A.B., Grayson, M. & Linz, D. (1987). The inventory of beliefs about wife beating: The construction and initial validation of a measure of beliefs and attitudes. Violence and Victims, 2, 39-58.

Saunders, D.G. (1994). Child custody decisions in families experiencing woman abuse. Social Work, 39, 51-59.

Sinclair, D. (1985). Understanding Wife Assault: A Training Manual for Counsellors and Advocates. Toronto: Ontario Government Bookstore.

Sroufe, L.A. & Fleeson, J. (1986). Attachment and the construction of relationships. In W.Hartup & Z. Rubin (Eds.) Relationships and Development (pp. 51-72). Hillsdale, NJ: Erlbaum.

Statistics Canada (1993). The Violence Against Women Survey. The Daily, November 18, 1993, Catalogue No. 11-001E. Ottawa: Statistics Canada.

Stein, A. & Lewis, D.O. (1992). Discovering physical abuse: Insights from a follow-up study of delinquents. Child Abuse & Neglect, 16, 523-531.

Stith, S.M. & Farley, S.C. (1993). A predictive model of male spousal violence. Journal of Family Violence, 8, 183-201.

Straus, M.A. (1979). Measuring intrafamily conflict and violence: The Conflict Tactics (CT) Scales. Journal of Marriage and the Family, 41, 75-78.

Straus, M.A., Gelles, R.J. & Steinmetz, S. (1980). Behind Closed Doors: Violence in the American Family. Garden City, NY: Doubleday/Anchor.

Tolman, R.M. & Bennett, L.W. (1990). A review of quantitative research on men who batter. Journal of Interpersonal Violence, 5, 87-118.

Truscott, D. (1992). Intergenerational transmission of violent behavior in adolescent males. Aggressive Behavior, 18, 327-335.

Virginia Department of Corrections Research and Reporting Unit (1993). Report on the Incidence of Child Abuse and Child Abusers among Inmates.

Widom, C. S. (1989a). Child abuse, neglect, and violent criminal behavior. Criminology, 27, 251-271.

Widom, C. S. (1989b). Does violence beget violence? A critical examination of the literature. Psychological Bulletin, 106, 3-28.

Widom, C. S. (1989c). Child abuse, neglect, and adult behavior: Research design and findings on criminality, violence, and child abuse. American Journal of Orthopsychiatry, 59, 355- 367.

Widom, C. S. (1991). Childhood victimization: Risk factor for delinquency. In M.E. Colten & S. Gore (Eds.) Adolescent Stress: Causes and Consequences (pp. 201-221). New York: Aldine de Gruyter.

Wolfe, D.A. (1987). Child Abuse: Implications for Child Development and Psychopathology. Newbury Park, CA: Sage.

Wolfe, D.A., Zak, L. Wilson, S. & Jaffe, P., (1985). Child witnesses to violence between parents: Critical issues in behavioral and social adjustment. Journal of Abnormal Child Psychology, 14, 95-104.

Zaidi, L.Y., Knutson, J.F. & Mehm, J.F. (1989). Transgenerational patterns of abusive parenting: Analog and clinical tests. Aggressive Behavior, 15, 137-152.