

An Examination of Competing Explanations for the Intergenerational Transmission of Domestic Violence

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Although domestic violence has been a feature of most societies throughout human history (Levinson, 1989), only within the last 25 years have we come to view it as a serious social problem. North America and Western Europe have been the location for much of the research on this topic, but in recent years, researchers from other parts of the world have also begun to investigate this issue. Studies of domestic violence consistently find that childhood exposure to family violence significantly increases the chances that an individual will be violent toward his or her spouse or children during adulthood. This intergenerational pattern is often referred to as a “cycle of violence” (Gelles & Cornell, 1990; Steinmetz, 1987).

Although there is strong evidence that family violence tends to be transmitted across generations, there has been little investigation of the theoretical mechanisms whereby intergenerational transmission occurs. The present chapter attempts to address this void by testing the adequacy of three theories often presented as potential explanations for this phenomenon. We begin by specifying what we mean by “domestic violence.” Next, we briefly review the evidence suggesting that such actions are often transmitted across generations. We then introduce three theoretical explanations for intergenerational transmission, making special note of the competing hypotheses implied by these different perspectives. Finally, structural equation modeling with a sample of approximately 350 families is used to test the hypotheses.

THE NATURE AND SOCIAL DISTRIBUTION OF DOMESTIC VIOLENCE

Domestic violence consists of physical attacks intended to hurt, intimidate, or coerce another family member. This includes actions such as slapping, punching, shoving, kicking, and striking with an object. Such acts are widely prevalent through out the world. For example, the

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International Handbook of Multigenerational Legacies of Trauma, edited by Yael Danieli. Plenum Press, New York, 1998.

anthropologist David Levinson (1988, 1989) found that violence toward wives occurred in the majority of households in almost half of the 90 societies that he studied, and corporal punishment of children was used frequently in 34% of these societies. In the United States, it is estimated that 90% of all parents sometimes use corporal punishment to discipline their children, and that approximately 30% of all couples experience marital violence at some point in their marriage (Straus & Gelles, 1988; Straus, Gelles, & Steinmetz, 1980).

Although many parents sometimes spank their child and a substantial proportion of married persons have been struck or pushed by their spouse, in the majority of families, the violence occurs infrequently and is not very severe. Children and marital partners exposed to severe and recurring physical attack are the ones most likely to display long-term emotional and behavioral problems. Thus, public and scientific concern has focused largely upon family violence that is harsh and persistent. Violence of this type is often labeled *child* or *spousal abuse*. Child and spousal abuse are, of course, much less prevalent than family violence in general. In the United States, for example, national survey data suggest that spousal abuse takes place in about 6% of all marriages, and abusive parenting occurs in 3–11% of all families (Straus & Gelles, 1988).

Studies indicate that fathers and mothers are equally likely to engage in violence toward their children (Wauchope & Straus, 1990), whereas, in most countries, it is much more common for husbands to hit their wives than for wives to hit their husbands (Levinson, 1989). The latter finding does not appear to hold in the United States, as several studies have reported that husbands and wives are about equally likely to hit each other (Simons, Wu, Johnson, & Conger, 1995; Straus & Gelles, 1986). However, given sex differences in size and strength, husbands are much more likely than wives to inflict physical and emotional injury when such violence occurs (Stets & Straus, 1990; Straus *et al.*, 1980).

CYCLE OF VIOLENCE: THE INTERGENERATIONAL LEGACY OF FAMILY VIOLENCE

Several studies have examined the developmental consequences of growing up in a violent family. This research indicates that childhood exposure to family violence places a person at increased risk for a number of behavioral and emotional problems (see Cicchetti & Carlson, 1989; Hotaling, Finkelhor, Kirkpatrick, & Straus, 1988; Wolfe, 1987). The most consistent finding, however, relates to the cyclical nature of family violence: Adults who either witnessed or were subjected to violence in their family of origin are at an elevated risk for engaging in violent behavior toward their spouse or children (O'Leary, 1988; Simons, Whitbeck, Conger, & Wu, 1991; Straus, 1983; Straus *et al.*, 1980).

Although growing up in a violent family increases the probability that a person will engage in domestic violence as an adult, the relationship is far from absolute. Indeed, the evidence suggests that the majority of people do not repeat the family violence that they witnessed as children. For example, based on a review of several studies, Kaufman and Zigler (1987, 1989) estimated that only about 30% of abused children grow up to abuse their own offspring. However, this statistic should not be interpreted as an indication that a history of child abuse has little impact on the chances that a person will grow up to be abusive. Survey research conducted in the United States suggests that the rate of abusive parenting is approximately 3%. Thus, a person who was abused as a child is *10 times* more likely to abuse his or her own children than an individual who was not subjected to such parenting (Gelles & Straus, 1988). A similar pattern has been found for spousal abuse. Although most persons who expe-

rience family violence as children do not grow up to engage in marital violence, they are several times more likely to display this behavior than individuals who were not exposed to family violence during childhood (Straus *et al.*, 1980).

These findings indicate that the phrase "cycle of violence" is somewhat misleading. The phrase is often taken to mean that persons exposed to family violence during childhood are doomed to reproduce this pattern of behavior with their own marital partner or children. Clearly, this is not the case. Most victims of abuse are able to avoid duplicating their parents' violent behavior. However, exposure to violent parents increases severalfold the chances that a person will be abusive as an adult. Indeed, growing up in a violent family is the most potent predictor of child or spousal abuse to be identified by social scientists. It is in this sense that a cycle of violence exists. Growing up in an atmosphere of family violence dramatically increases the probability that an individual will be a violent parent or spouse.

THEORIES OF INTERGENERATIONAL TRANSMISSION

Although researchers agree that family violence is often transmitted across generations, there is little agreement concerning the mechanisms whereby this occurs. Past studies have been concerned with documenting the existence of intergenerational effects and have devoted little attention to the theoretical processes that account for the occurrence of this phenomena. The present study evaluates the adequacy of three explanations for these intergenerational patterns.

The first explanation, which we will label the *role modeling* perspective, asserts that children learn about the role of parent by observing the parenting practices of their parents, and they acquire information regarding the role of marital partner by observing the interaction between their parents. Thus, children exposed to abusive parenting or violent parental interaction assume that aggression is a normal part of parenting or marital interaction, and, as adults, are likely to engage in such behavior when interacting with their spouse or offspring. Consistent with this view, severe treatment as a child has been found to predict harsh parenting as an adult (Simons, Beaman, Conger, & Chao, 1993a; Simons *et al.*, 1991; Straus *et al.*, 1980), while studies have reported that childhood exposure to violence between parents increases the probability of adult marital violence (Pagelow, 1981; Rosenbaum & O'Leary, 1981).

The second explanation offers a somewhat broader view of the messages that are transmitted by physically aggressive parents. Childhood exposure to family violence, whether marital violence or harsh parenting, is seen as providing lessons that foster spousal as well as child abuse (O'Leary, 1988; Straus & Smith, 1990b; Straus *et al.*, 1980). Straus *et al.*, for example, have argued that both harsh physical discipline and marital violence teach children that it is legitimate, indeed, often necessary, to hit those you love (i.e., other family members). Thus, exposure to any form of family violence is seen as promoting attitudes that increase the probability that children will grow up to behave aggressively toward their spouse and offspring. For purposes of the present chapter, this viewpoint is termed the *family relationships* perspective. Consistent with this viewpoint, there is evidence that childhood exposure to harsh parenting increases the probability of adult marital violence (Rosenbaum & O'Leary, 1981; Straus *et al.*, 1980), and that children who witness their parents hitting each other often grow up to employ harsh parenting practices with their offspring (Straus *et al.*, 1980).

Finally, the criminology literature suggests a still broader view of what is learned in an atmosphere of family violence. Several studies have shown that deviant acts tend to be correlated so that individuals who engage in one type of deviant behavior tend to participate in other types as well (e.g., Donovan & Jessor, 1985; Jessor & Jessor, 1977; Osgood, Johnston, O'Malley, &

Bachman, 1988). There is also evidence that antisocial behavior is rather stable over the life course (Caspi & Moffitt, 1992; Loeber, 1982; Loeber & Le Blanc, 1990; Sampson & Laub, 1993). Those who manifest high levels of antisocial behavior at an early age are at risk for chronic delinquency during adolescence and continued reckless and irresponsible behavior during adulthood (Farrington, 1991; Loeber & Le Blanc, 1990; Patterson & Yoerger, 1993). In other words, antisocial behavior shows the characteristics of a behavior trait (i.e., a pattern of behavior that is expressed across time and situations) (Allport, 1937). This body of literature suggests that family violence is likely to be an expression of a more general antisocial pattern of behavior. It indicates that persons who engage in persistent aggression toward family members are inclined to have a history of involvement in a wide variety of other antisocial behaviors as well.

If family violence is an expression of a general antisocial orientation, how does such an orientation develop? Criminological research suggests that antisocial tendencies tend to emerge in childhood. A number of studies indicate that children are at risk for developing an antisocial pattern of behavior when they are exposed to inept parenting, of which rejection or abusive discipline is a type (Patterson, Reid, & Dishion, 1992; Sampson & Laub, 1993; Simons, Wu, Conger, & Lorenz, 1994). Furthermore, studies indicate that there is an increased probability that parents will engage in such parenting if they have antisocial tendencies (Capaldi & Patterson, 1991; Patterson *et al.*, 1992; Simons, Beaman, Conger, & Chao, 1993b). Antisocial parents are also apt to assault their marital partner (Fagan, Steward, & Hansen, 1983; Hotaling, Straus, & Lincoln, 1990; Simons *et al.*, 1995; Walker, 1979). Together, these findings suggest that aggressive antisocial parents are likely to hit each other and engage in ineffective, abusive parenting. This inept parenting, in turn, increases the probability that their children will grow up to engage in antisocial behavior of all sorts, including violence toward their spouse and children. In other words, it is a general pattern of antisocial behavior, and not specific lessons regarding domestic violence, that is transmitted across generations in violent families. For purposes of the present chapter, we label this the *antisocial orientation* perspective.

Unfortunately, there has been little effort to apply this perspective to the phenomenon of domestic violence. Indeed, both family researchers (Gelles & Straus, 1979; Hotaling & Straus, 1980) and criminologists (Megargee, 1982) have argued that domestic violence requires a special theory and should not be approached as a subset of general violent behavior. Albeit, as Hotaling *et al.* (1990) have noted, the question of whether family violence has a similar etiology to other forms of violent and deviant behavior is really an empirical question. The remainder of this chapter is devoted to testing the hypotheses implied by the antisocial orientation, role modeling, and family relationships perspectives on intergenerational transmission of family violence.

HYPOTHESES

The three theoretical perspectives provide differing accounts of the processes whereby the past behavior of the grandparent generation (G1) increases the probability that their adult children (G2) will engage in violence toward their spouse or children. The role modeling viewpoint emphasizes lessons specific to the roles of marital partner or parent; the family relationships framework focuses on messages regarding appropriate behavior in intimate relationships; and the antisocial orientation perspective stresses the consequences of a general antisocial approach to life. Table 1 summarizes the predictions that regarding the correlation of family violence across generations, each of these points of view suggests the association between marital violence and child abuse, and the relationship between family violence and other forms of deviant behavior.

Table 1. Theoretical Predictions Regarding the Family Violence of Parents (Generation 1) and Their Adult Offspring (Generation 2)

		Hypothesized relationships						
	Association between G1 and G2 harsh parenting	Association between G1 and G2 marital violence	Association between G1 and G2 harsh parenting and G2 marital violence	Association between G1 and G2 harsh parenting and G2 marital violence	Association between marital violence and harsh parenting (for both G1 and G2)	Association between antisocial behavior and both marital violence and harsh parenting (for both G1 and G2)	Association between family violence and G2 antisocial behavior	Controlling for G2 antisocial behavior eliminates the associations between G1 and G2 family violence
PTheoretical perspectives	Yes	Yes	Yes	No	Yes	No	No	No
Role modeling	Yes	Yes	Yes	No	Yes	No	No	No
Family relationships	Yes	Yes	Yes	No	Yes	No	No	No
Antisocial orientation	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes

Table 1 shows that all three perspectives imply a bivariate association between harsh parenting by G1 and harsh parenting by G2. Similarly, all three would expect a correlation between marital violence by G1 and marital violence by G2. Whereas the theories agree regarding these two bivariate relationships, the remaining columns of Table 1 present points of disagreement.

G1 Harsh Parenting and G2 Marital Violence

The family relationships viewpoint assumes an association between G1 harsh parenting and G2 marital violence, as exposure to harsh parenting teaches that it is appropriate to hit those you love. The antisocial orientation perspective would also predict an association between these variables, as exposure to abusive parenting is seen as increasing the probability of aggressive behavior of all types, including marital violence. The role modeling framework, on the other hand, would not expect such an association, as harsh parenting by G1 is seen as providing information to G2 that is specific to the role of parent. These parenting lessons are seen as having little or no effect on a person's approach to the role of marital partner.

G1 Marital Violence and G2 Harsh Parenting

The family relationships perspective posits a relationship between G1 marital violence and G2 violence toward children, as exposure to aggressive conflict between parents during childhood is thought to foster the perception that it is acceptable to hit loved ones. The role modeling viewpoint does not make this prediction. It assumes that parental conflict shapes a child's view of the role of spouse, but has little impact upon his or her ideas regarding the role of parent. The antisocial orientation perspective also does not predict an association between G1 marital violence and G2 parenting, as it assumes that it is parenting practices, and not quality of marital interaction, that fosters an antisocial behavior in children.

Spouse and Children as Targets of Violence

Both the family relationships and antisocial orientation perspectives predict that aggression toward children is associated with aggression toward the spouse. The role modeling viewpoint would not assert this relationship, as there is no reason to expect that scripts specific to the role of parent influence behavior in the role of marital partner. To a large degree, research on harsh parenting represents a separate research tradition from that focusing upon violence toward spouses (Finkelhor, 1983). As a consequence, there has been little consideration of the links that exist between child and spousal abuse. However, two recent studies have investigated this issue, and both found an association between the two phenomena (Hotelling *et al.*, 1990; Simons *et al.*, 1995).

Family Violence and Other Forms of Antisocial Behavior

The role modeling and family relationships frameworks portray family violence as distinct from other forms of violent and deviant behavior. The antisocial orientation perspective, on the other hand, views chronic domestic violence as part of a general antisocial lifestyle. Hence, it predicts a correlation between aggression toward children or a spouse and involvement in other forms of antisocial behavior. This association would be expected for both G1 and G2.

Some studies have reported a relationship between spousal violence and having a criminal record; however, these studies are based upon clinical samples and utilize no comparison group

(Fagan *et al.*, 1983; Flynn, 1977; Gayford, 1975; Stacy & Shupe, 1983; Walker, 1979). Although a few studies have found that fathers of assaulted children often have criminal records (Gil, 1970; Skinner & Castle, 1969; Smith, Hansen, & Noble, 1973), other researchers have not found this to be the case (Steele & Pollack, 1968; Straus, 1985). Rather than focusing upon criminal records, Hotaling *et al.*, (1990) examined the relationship between domestic violence and self-reported assaults upon nonfamily members. Using data from the 1985 National Family Violence Survey, they reported that the hitting of either a spouse or child was associated with aggression toward nonfamily members. In the present study, we examine the extent to which domestic violence is related to both violent and nonviolent deviant behaviors outside of the family.

G1 Family Violence and G2 Antisocial Behavior

The antisocial orientation perspective asserts that abusive parenting is an ineffective approach to parenting that increases the chances that a child will engage in a wide variety of risky and antisocial behaviors during adolescence and adulthood. This suggests that harsh parenting by G1 will be related to G2's involvement in a broad range of deviant activities. On the other hand, the antisocial orientation perspective does not assume a relationship between G1 marital violence and G2 involvement in antisocial behavior. It is parents' parenting practices, and not their marital interaction, that is seen as the primary determinant of children's antisocial behavior. Any bivariate correlation between G1 marital violence and G2 antisocial behavior would be considered spurious and as likely to disappear once the effects of G1 harsh parenting are taken into account.

These predictions are quite different from those of the other two theoretical perspectives. The role modeling viewpoint posits that G2 will only engage in the type of antisocial behavior displayed by the parents. Thus, G1 harsh parenting increases the chances of G2 harsh parenting, and G1 marital violence places G2 at risk for marital violence. The family relationships position is somewhat broader. It posits that any type of family violence by G1 increases the odds that G2 will engage in some form of family violence. No relationship would be expected, however, between G1 family violence and G2 involvement in other categories of antisocial behavior.

The Effects of Controlling for Antisocial Behavior

The antisocial orientation viewpoint argues that childhood exposure to inept parenting, such as harsh physical discipline, fosters an antisocial lifestyle that, in turn, increases the probability of deviance in general, including violence toward family members. If this argument is valid, there should be no relationship between harsh treatment during childhood and aggression toward either children or spouse once the level of antisocial orientation is controlled. Stated differently, the impact of childhood experience upon adult family violence should be indirect through this syndrome of antisocial behavior.

In contrast, the role modeling perspective asserts that youngsters raised in violent families learn parenting and marital scripts that influence their adult performance of these roles. This would argue for a direct relationship between G1 and G2 parenting, and between G1 and G2 marital interaction, even after controlling for G2's level of antisocial orientation. The family relationships perspective contends that both harsh parenting and marital violence teach children that it is acceptable, indeed often necessary, to hit other family members. This view suggests that controlling for level of antisocial orientation should have little or no impact on the association between G1 parental or marital violence and G2 aggression toward both children and spouse.

METHODS AND PROCEDURES

Sample and Data Collection

Data from the Iowa Youth and Families Project (IYFP) were used to test the hypotheses. The IYFP is a panel study concerned with the life-course trajectories of parents and their adolescent children. The sample consists of 451 two-parent families recruited through the cohort of all seventh-grade students, male and female, in eight counties in North Central Iowa, who were enrolled in public or private schools during winter and spring 1989. An additional criterion for inclusion in the study was the presence of a sibling within 4 years of age of the seventh grader.

The families in the study lived on farms (about one-third) or in small towns. All of the families were white, and annual income ranged from zero to \$135,000, with a mean income of \$29,642. Fathers' education ranged from 8 to 20 years, with a mean of 13.5 years of education, while for mothers, the range was from 8 to 18 years, with a mean of 13.4 years. Additional information regarding the sample is available in Conger, Elder, Lorenz, Simons, and Whitbeck (1992).

The same data-collection procedures were employed annually with the families. Members of each family was visited twice at their home. During the first visit, each of the four family members completed a set of questionnaires focusing upon family processes, individual family member characteristics, and economic circumstances. During the second visit, which normally occurred within 2 weeks of the first, the family was videotaped while engaging in several different, structured interaction tasks. A description of the tasks is provided in Conger *et al.* (1992). The videotapes were coded by project observers using the Iowa Family Interaction Rating Scales (Melby *et al.*, 1990). These scales focus upon the quality of behavior exchanges between family members.

Families received \$250 annually for their participation, which translated into about \$10 per hour for each family member's time. The analyses for this chapter are based upon data collected over the first four waves of the project. Retention rates were above 90% for each wave. Complete data for the measures used in the present analyses were available for 324 families.

Measures

G1's Harsh Discipline. At Wave 1, husbands and wives completed a 4-item Harsh Discipline Scale for each of their parents. The items were adapted from the Conflict Tactics Scale (Straus, 1979; Straus *et al.*, 1980) and asked the respondents to indicate how their mother (or father) disciplined them during adolescence. The questions asked how often they were slapped, hit, or shoved by their mother (or father) when they did something wrong. Response categories ranged along a 5-point continuum with 1 = *Never*, 3 = *About half the time*, and 5 = *Always*. Note that whereas spanking or slapping may indicate discipline that is normative during early childhood, it is less typical and more indicative of harsh parenting if it continues during adolescence (Straus, 1983). Coefficient alpha was above .70 for both husband and wife reports. The harsh discipline of the grandfather tended to be highly correlated with the practices of the grandmother ($r \geq .49$). The scores for grandfathers and grandmothers were summed to form a composite measure of the amount of harsh discipline that a husband or wife had experienced during adolescence.

G2's Harsh Discipline. At Waves 2, 3, and 4, the target child and the sibling reported on the harsh discipline of their mother and father using a scale very similar to the measure of G1's harsh discipline described earlier. Coefficient alpha ranged from .75 to .85 for the three

waves. The correlation between target and sibling reports was .35 at Wave 2, .31 at Wave 3, and .28 at Wave 4. Scores for the target child and sibling were summed to form a composite measure of harsh discipline by each parent.

G1 Marital Strife. At Wave 1, husbands and wives were asked to think back to the period when they were growing up and to describe their parents' marriage using three questions. The questions focused on intensity of fighting, hostility, and dissatisfaction. Unfortunately, the questions did not focus explicitly on violence. Thus, our measure assumes that marital violence is most apt to be present among couples who frequently fight, and who display a high level of hostility and dissatisfaction toward one another. Coefficient alpha for the instrument was .84.

G2 Violence toward Spouse. At Waves 2, 3, and 4, husbands and wives used a single item to report on the extent to which they had been physically hit or shoved by their partner. Respondents were asked to think about times then they had interacted with their spouse during the *previous month* and to report how often he or she had "hit, pushed, grabbed, or shoved you." Response format ranged from 1 (*Never*) to 7 (*Always*), with 4 = *About half the time*.

G1 Antisocial Behavior. Antisocial behavior involves actions that are deemed risky, inappropriate, shortsighted, or insensitive by the majority of people in the society (Patterson *et al.*, 1992; Robins, 1974). This would include acts such as fighting, substance abuse, extramarital affairs, lying, violations of the law, and the like. At Wave 1, husbands and wives completed an 8-item antisocial behavior scale for each of their parents. The items asked about issues of irresponsibility, drug and alcohol use, emotional problems, and loss of temper and conflicts with nonfamily members. Coefficient alpha was approximately .80 for reports about both grandfathers and grandmothers. There was a .32 correlation between the scores for grandmothers and those for grandfathers. The scores for grandfathers and grandmothers were summed to form a composite measure of the level of parental antisocial behavior to which a husband or wife was exposed as a child.

G2 Antisocial Behavior Trait. Five instruments, covering a variety of deviant acts, were used to form a composite measure of G2 antisocial behavior. Confirmatory factor analysis demonstrated that the measures grouped on a single factor with reasonable factor loadings. The loadings were generally in the range of .40 to .60.

The first instrument consisted of a *deviant behavior checklist* that asked respondents how often (0 = *Never*; 4 = *4 or more times*) during the past 12 months they had engaged in each of five deviant acts. The acts focused upon fighting, traffic violations, lying, gambling, and having been arrested. Mothers and fathers completed this instrument at Waves 2 and 3.

At Waves 1 and 2, husbands and wives completed a 14-item *substance abuse scale*. They were asked to report how often during the last 12 months (1 = *Never*; 4 = *Often*) they had engaged in the behavior or experienced the phenomenon described in each question. The items involved incidents such as getting drunk, trouble at work because of alcohol, and using illicit drugs. Coefficient alpha for the scale was above .80 for both mothers and fathers.

An *observational measure* of antisocial behavior was formed through ratings of parental behavior from the first two tasks of the videotaped interaction obtained at Waves 1 and 2. Different coders were used for the two tasks in order to provide independent assessments of behavior. Using a scale ranging from 1 to 5, the coders rated the extent to which parents were antisocial in their interactions with other family members. Antisocial behavior was defined as

the degree to which an individual is self-centered and resists, defies, or is inconsiderate of others by being noncompliant, insensitive, or obnoxious. For each parent, the ratings were summed across tasks and waves of data collection. Coefficient alpha was .88 for mothers and .90 for fathers.

At Wave 3, husbands and wives completed an 8-item instrument concerning the extent to which various *deviant activities were characteristic of their spouse*. The items focused upon substance use, traffic tickets, fights, trouble with the police, and reckless behavior. Response format for the items ranged from *Strongly disagree* to *Strongly agree*. Coefficient alpha for the scale was .73 for the reports by wives and .75 for the reports by husbands.

Finally, an index concerned with delinquent behavior during adolescence was included. This instrument consisted of a list of 14 *delinquent acts*, including items such as shoplifting, skipping school, drinking alcohol, and fighting. Respondents were asked to indicate which of the acts they had engaged in prior to age 15. Coefficient alpha for this instrument was .58 and .68 for husbands and wives, respectively.

The scores for the various instruments were standardized and summed to obtain a composite measure of a husband's or wife's recurrent involvement over a number of years in a wide range of antisocial behaviors. Thus, scores on this instrument represent a persistent pattern of antisocial acts that might be considered evidence of a general antisocial orientation.

RESULTS

Table 2 shows the percentage of mothers and fathers who were reported to have engaged in violence toward the target child, sibling, or their spouse at one wave, at all three waves, or who were not reported to have engaged in violence. Table 2 indicates, for example, that 14.2% of the target children reported at all three waves that they had been hit by their mother during the prior month, whereas 49.4% reported no violence at any wave. Similar percentages are reported for fathers. The percentage of wives and husbands who reported having been hit at all

Table 2. Number and Percentage of Parents Who Were Violent across Waves

	Violent in three waves	Violent in one wave	No violence in any wave
Mother's violence			
Toward target	14.2% (45)	50.6% (160)	49.4% (156)
Toward sibling	8.9% (28)	49.7% (157)	50.3% (159)
Toward spouse	3.2% (10)	21.2% (67)	78.8% (249)
Father's violence			
Toward target	13.6% (44)	46.9% (152)	53.1% (172)
Toward sibling	9.3% (30)	46.6% (151)	53.4% (173)
Toward spouse	1.5% (5)	12.3% (40)	87.7% (284)

three waves is 1.5 and 3.2, respectively. Eighty-eight percent of the wives and 79% of the husbands did not report having been hit at any of the waves.

Based upon the figures presented in Table 2, 28% of the mothers who used corporal punishment with their target child did so at all three waves. The figure for fathers is 29%. Twelve percent of the wives who were the victims of violence reported having been hit at all three waves and 27% at two or more waves. The corresponding figure for husbands is 15%.

The percentages reported in Table 2 involve dichotomies where the parent either did or did not engage in a violent act toward a particular family member. This is not a very strong test of the continuity of violence across time, as it does not take into account the level of violence perpetrated. This is important, as it is parents or spouses who engage in high levels of violence that are most likely to persist in the behavior across time. A better test for continuity of violence over time is provided by the correlations presented in Table 3, which shows, for example, that there is a .68 correlation between the target child's reports of violence by the father at Waves 2 and 3, and a correlation of .54 between reports of violence at Waves 2 and 4. The coefficients are of similar magnitude for sibling reports of aggression by father. A comparable pattern of continuity holds for mothers' harsh discipline of both the target child and the sibling.

The husband's violence toward the wife at Wave 2 correlates .54 and .60 with his violence toward her at Waves 3 and 4, respectively. The correlations are of similar magnitude for the wife's violence toward the husband. Thus, Table 3 provides rather strong support for the idea that high levels of family violence tend to be persistent across time. Tangentially, Table 3 also indicates that violence tends to run in couples. At each wave, there are strong correlations between father's and mother's violence toward a child. Similarly, husbands' reports of having been hit are correlated with wives' reports of having been hit.

Table 4 presents the bivariate associations between the various constructs included in our study. As noted in the measures section, a single indicator (often consisting of a composite measure) was used for all of the explanatory variables. The explanatory variables were used to explain persistent G2 involvement in aggression toward spouse and children. In order to form a measure of persistent aggression toward children, child reports collected at Waves 2, 3, and 4 were used as indicators to form the latent constructs Mother's Aggression toward Children and Father's Aggression toward Children. Similarly, spousal reports from Waves 2, 3, and 4 were employed as indicators of Husband's Aggression toward Spouse and Wife's Aggression toward Spouse. Log transformations were used in place of raw scores for both the child and marital aggression measures in order to correct for skewed distributions. LISREL VII (structural equation modeling) was used to calculate the correlations between the constructs.

The family relationships and antisocial orientation perspectives suggest that aggression toward children will be related to violence toward a spouse. Table 4 provides support for this idea. The association is .20 for G2 fathers and .24 for G2 mothers. There are also significant

Table 3. Pearson Correlations for Family Violence across Waves

	Toward target child			Toward sibling			Toward spouse		
	Wave 2	Wave 3	Wave 4	Wave 2	Wave 3	Wave 4	Wave 2	Wave 3	Wave 4
Wave 2	.70*	.68*	.54*	.68*	.55*	.40*	.34*	.54*	.60*
Wave 3	.58*	.60*	.57*	.58*	.69*	.49*	.56*	.40*	.56*
Wave 4	.48*	.62*	.67*	.35*	.33*	.55*	.49*	.50*	.39*

Note: For each 3 × 3 cell, the coefficients above the diagonal are for fathers, those below the diagonal are for mothers, and coefficients on the diagonal are correlations between mother–father scores.

Table 4. Bivariate Correlations between Latent Constructs

	1	2	3	4	5	6
1. G1 antisocial behavior	1.00	.65*	.42*	.25*	.05	.04
2. G1 marital strife	.66*	1.00	.35*	.21*	.03	.04
3. G1 harsh parenting	.62*	.45*	1.00	.29*	.15*	.06
4. G2 antisocial behavior	.26*	.19*	.33*	1.00	.19*	.24*
5. G2 aggression toward children	.11*	.04	.22*	.22*	1.00	.20*
6. G2 aggression toward spouse	.07	.04	-.01	.21*	.24*	1.00

Note. Coefficients above the diagonal are for fathers, those below the diagonal are for mothers.

* $p = .05$

correlations for the G1 parents. The coefficient between G1 Harsh Parenting and G1 Marital Strife is .35 for the parents of G2 fathers and .45 for the parents of G2 mothers.

Table 4 also shows a significant bivariate association between G1 Harsh Parenting and G2 Aggression toward Children, a relationship assumed by all three theoretical frameworks. The coefficient is .22 for mothers and .15 for fathers. In addition to this relationship, the family relationships perspective posits a relationship between G1 Marital Strife and G2 Aggression toward Children. Contrary to the theory, these correlations are *not* significant for either mothers or fathers.

The family relationships and antisocial orientation perspectives both predict an association between G1 Harsh Parenting and G2 Aggression toward Spouse. Again, the correlations are *not* significant for either mothers or fathers. The latter finding is more consequential for the family relationships than the antisocial behavior perspective, as it may be that there is no significant bivariate association between these constructs, because G1 harsh parenting is linked to G2 marital violence through its impact on G2's general antisocial orientation, that is, the effect of G1 Harsh Parenting on G2 Aggression toward Spouse is indirect through G2 Antisocial Behavior. This idea is tested below using structural equation modeling.

Finally, Table 4 shows that G1 Antisocial Behavior is correlated with G1 Marital Strife and G1 Harsh Parenting. And, G2 Antisocial Behavior is related to G2 Aggression toward Children, G2 Aggression toward Spouse, and G1 Harsh Parenting. This pattern of associations is predicted by the antisocial orientation perspective, but not by the other two theoretical positions.

Figures 1 and 2 present the results of using LISREL VII to examine the extent to which a general antisocial orientation serves to mediate the effect of G1 Marital Strife and Harsh Discipline on G2 family violence. The families in the sample were largely working class and therefore represented a restricted range of socioeconomic status. Analysis showed that neither family income nor parents' level of education was related to Antisocial Behavior, Aggression toward Children, or Aggression toward Spouse. Hence, in an effort to save degrees of freedom, these variables were not included in the LISREL VII. Also, it should be noted that the models were originally run separately by gender of child and the results were virtually identical whether the target child was male or female. Therefore, in order to increase the sample size for the analyses, the models reported are based on the total sample.

The Goodness of Fit Indexes (GFIs) and X^2 values indicate that the models provide an adequate fit of the data. The pattern of findings is almost identical for husbands and wives. As an aid to the reader, statistically significant paths are depicted in boldface. Consonant with the antisocial orientation perspective, G1 Harsh Discipline is related to G2 Antisocial Behavior ($\beta = .22$ for husbands and $.27$ for wives), which in turn, shows significant associations with both Aggression toward Children ($\beta = .16$ for fathers and $.17$ for mothers) and Aggression toward

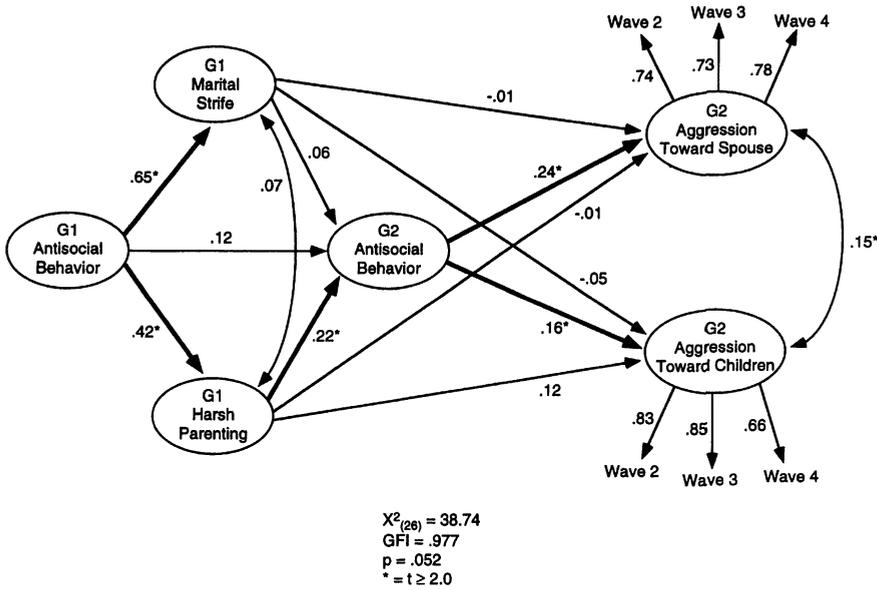


Figure 1. Structural equation model for fathers ($N = 324$).

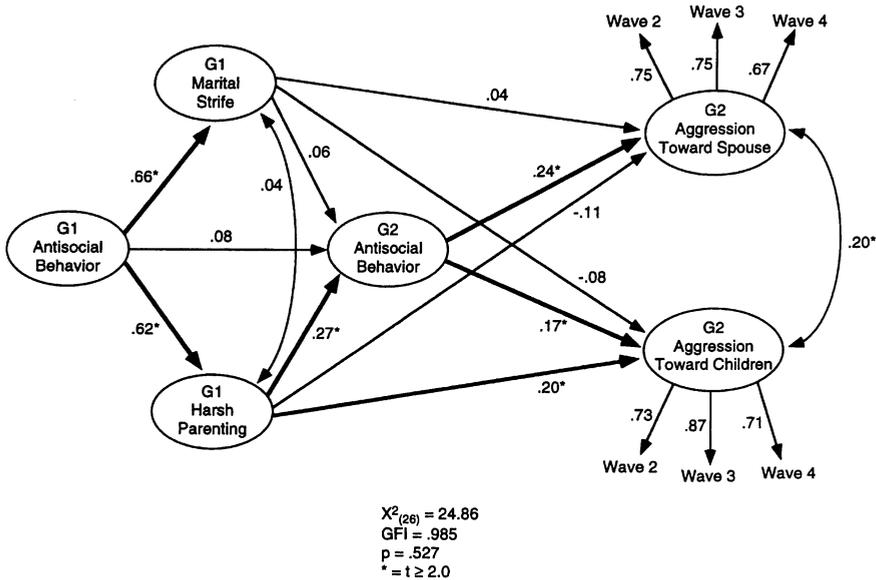


Figure 2. Structural equation model for mothers ($N = 316$).

Spouse ($\beta = .24$ for both husbands and wives). There are no significant paths for G1 Antisocial Behavior or Marital Strife to G2 Antisocial Behavior, Aggression toward Spouse, or Aggression toward Children. This pattern of results suggests that antisocial parents tend to engage in marital violence and harsh parenting, and that such parenting, in turn, increases the chances

that their children will grow up to engage in a wide variety of antisocial behaviors, including violence toward their spouse and children.

While the findings provide support for the antisocial orientation perspective, there is also some corroboration of the role modeling viewpoint. Figure 2 shows that after controlling for G2 Antisocial Behavior, there continues to be a significant association between G1 Harsh Parenting and G2 Aggression toward Children. It thus appears that both the antisocial orientation and the role modeling perspectives account for correlations across generations between the harsh parenting of parents and their daughters. It seems that girls exposed to harsh parenting are at risk for acquiring aggressive parenting scripts and a general antisocial orientation, and both of these consequences increase the likelihood that she will be violent toward her own children.

DISCUSSION

Studies of domestic violence have consistently found that childhood exposure to family violence significantly increases the chance that an individual will grow to be violent toward his or her own spouse and children. This tendency for domestic violence to persist across generations was also evident in our analyses. While there is strong support for the contention that family violence is often transmitted across generations, there has been little investigation of the theoretical mechanisms whereby this transmission occurs. Past studies have been concerned with documenting the existence of intergenerational effects and have devoted little attention to the theoretical processes that account for the occurrence of this phenomenon.

As noted earlier, speculation regarding the mechanisms that account for intergenerational effects generally falls into three types. The role modeling position asserts that children learn about the role of parent by observing the parenting practices of their parents, and they acquire information regarding the role of marital partner by observing the interaction between their parents. Thus, children exposed to harsh parenting grow up to hit their children, and children who witness their parents striking each other grow up to hit their spouse. The family relationships perspective posits that both harsh physical discipline and marital violence teach children that it is legitimate, indeed, often necessary, to hit those you love (i.e., other family members). Thus, exposure to any form of family violence is seen as promoting attitudes that increase the probability that children will grow up to behave aggressively toward their spouse and offspring. Finally, the antisocial orientation viewpoint contends that antisocial parents often hit each other and their children, and that such a family environment increases the probability that children will grow up to engage in antisocial behavior of all sorts, including violence toward their spouse and children.

Our analyses provided some support for the role modeling perspective, although the effect was limited to women and the role of parent. After controlling for potentially confounding factors, exposure to harsh parenting during childhood increased the chances that a mother would use harsh corporal punishment with her own children. This relationship did not hold for fathers. There was a bivariate association between a father's having been hit as a child and his use of harsh parenting practices with his own children, but this correlation disappeared once commitment to a general antisocial orientation was controlled. Also, contrary to the role modeling perspective, childhood exposure to harsh conflict between parents did *not* increase the probability that a person would grow up to hit his or her spouse. This was true for both men and women.

The finding that childhood exposure to harsh parenting influences the parenting practices of women, but not men, may be a function of the fact that the culture identifies mothers as the primary parent (LaRossa, 1986; Simons, Beaman, Conger, & Chao, 1992). Fathers are seen

as playing a secondary role, which largely consists of assisting the mother in her care of the children. Given these cultural scripts, girls are more likely than boys to engage in anticipatory socialization regarding the role of parent. This concern with the role of parent might be expected to enhance their attention and awareness of the parenting practices modeled by their parents, with the result that women are more likely than men to reenact the parenting behaviors displayed in their family of origin.

Although our results provided some support for the role modeling perspective, it was the antisocial orientation viewpoint that received the strongest support. The analyses indicated that spousal and child abuse tend to be correlated. Persons who engage in persistent marital violence also tend to display aggression toward their children, and vice versa. Furthermore, we found that persons who engage in persistent family violence are also involved in other forms of deviant behavior (e.g., substance abuse, problems with the law, employment difficulties). Violence toward family members is simply one component of their general antisocial approach to life. Finally, our results indicated that it is this general antisocial orientation, rather than lessons specific to family roles, that is transmitted across generations. We found that antisocial parents tend to engage in marital violence and harsh parenting, and that such parenting, in turn, increases the chances that their children will grow up to engage in a wide variety of antisocial behaviors, including violence toward their spouse and children.

The domestic violence literature often portrays perpetrators as having few distinguishing characteristics (Pagelow, 1984). They are depicted as ordinary citizens in all respects except for their abusive behavior. This view may well be accurate for individuals who only occasionally engage in family violence. Situational factors such as economic pressure, emotional distress, and marital conflict have been linked to aggression toward children and spouse. (Conger, McCarthy, Young, Lahey, & Kropp, 1984; Simons, Lorenz, Wu, & Conger, 1993; Straus & Smith, 1990a), and one might posit that infrequent outbursts of violence toward family members are best explained by such aversive circumstances, albeit results from the present study suggest that individuals who engage in recurring family violence are often distinctive in that they participate in other forms of deviant behavior as well. Our results indicated that there is a relationship between persistent domestic violence, whether hitting of a spouse or child, and involvement in a wide variety of antisocial actions.

It is important that this finding be interpreted with proper caution. The association between domestic violence and other types of deviance did not approach unity. Therefore, while the results suggest a clear tendency for individuals who engage in family violence to participate in other forms of antisocial behavior as well, there are exceptions to this tendency. Certainly, the fact that an individual does not have a history of involvement in antisocial behavior should never be used as a reason for failing to investigate seriously accusations of child or spousal battering.

Our finding of an association between family violence and other forms of deviant behavior is consistent with recent reviews of research on spousal batterers (Hotaling & Sugarman, 1986) and child abusers (Hotaling *et al.*, 1990) that have concluded that the demographic risk factors for these behaviors are quite similar to those for criminal violence in general. It is also consonant with the finding that adolescents and adults who engage in domestic assault often have had contact with the police for a variety of criminal behaviors (Dunford, Huizinga, & Elliott, 1990; Hotaling *et al.*, 1990; Sherman *et al.*, 1991). These studies have concentrated on male perpetrators, the group that represents the gravest threat to family members given the degree of injury that they often inflict upon their victims (Stets & Straus, 1990). Findings from the present study suggest that a general antisocial orientation tends to be characteristic of women, as well as men, who engage in persistent family violence.

The finding that persistent family violence tends to be part of a general antisocial orientation is important because of the treatment implications that it suggests. Effective intervention for any difficulty requires an accurate understanding of the factors that serve to foster and maintain the problem. Many programs for family violence are built on the naive assumption that such behavior is a function of distorted beliefs (learned in the family of origin) regarding the role of spouse or parent. Based on this premise, treatment programs for abusive parents usually involve teaching more constructive strategies for managing children's behavior, and interventions with men who are violent toward their wives focus on their attitudes regarding women and marriage.

While such approaches may have some value, treatment is likely to have a limited, long-term effect to the extent that it ignores the reality that in many cases, the person's behavior toward family members is indicative of a more general antisocial approach to life. The perpetrator is apt to revert back to aggressive treatment of family members if he or she continues to use substances, to get into fights, to miss work, to mismanage family finances, and so on. A truly effective treatment would be concerned with assisting the perpetrator to develop a more responsible lifestyle. Such interventions are likely to be costly in terms of both time and money. Indeed, it is not clear that current treatment technologies are able to produce such pervasive changes in a person's lifestyle, especially if he or she is resistant to change. However, results from our study, as well as those reported by others, suggest that it is only by creating such intervention programs that we will be able to help perpetrators of family violence to desist from such behavior.

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