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Intimate Partner Violence and Child Maltreatment: Understanding Co-occurrence and Intergenerational Connections

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Abstract

Low-income adult women were interviewed regarding their experiences with intimate partner violence and child maltreatment during childhood and adulthood, and intra- and intergenerational relationships between different forms of family violence were identified. Analyses demonstrated weak to moderate associations across multiple forms of violence within generations. Only weak support was found for the transmission of violence hypothesis, according to which maltreated children are more likely to grow up to maltreat their own children. Stronger support was found for the theory of learned helplessness, whereby children maltreated or witness to violence during childhood are more likely to be victimized as an adult. The results from this study suggest that interventions with children who are identified for one form of victimization should be assessed for other forms of victimization, and interventions should also address learned behaviors associated with continued or future victimization.

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INTRODUCTION

Past research has generated evidence supporting the intergenerational transmission of family violence, although rates of transmission vary substantially across studies. Since few studies distinguish specific forms of family violence within the same sample (e.g., intimate partner violence, child physical abuse, child sexual abuse, and child neglect), very little is known about the exact nature of intergenerational pathways of family violence. The purposes of this analysis are to assess the extent to which different forms of family violence occur during childhood and during adulthood within the same sample, and to understand the intergenerational relationships within and across specific forms of family violence.

We use data from a panel study of welfare recipients to explore these questions. Self-reports of childhood histories of physical and sexual abuse, neglect, and exposure to intimate partner violence (IPV) are analyzed in conjunction with self-reports of adulthood IPV victimization and with administrative data on reports of different types of child maltreatment (related to respondents' own children). This study affords the opportunity to advance an understanding of the risk and protective factors associated with multiple forms of family violence. Such knowledge is key to the development of effective prevention programs and policies.

BACKGROUND

Co-occurrence of Different Forms of Family Violence

Many research studies focus on one form of childhood abuse and do not account for the presence of multiple forms of child maltreatment. Several studies have found that children experiencing family-oforigin violence often experience multiple forms of maltreatment. For example, the presence of child sexual abuse among females was determined to increase the likelihood of childhood emotional abuse, physical abuse, and physical neglect (Dong, Anda, Dube, Giles, and Felitti, 2003). Other studies (Clemmons, DiLillo, Martinez, DeGue, and Jeffcott, 2003; Higgins and McCabe, 2000; Moeller, Bachman, and Moeller, 1993) have also documented a large degree of overlap among various forms of childhood maltreatment (physical abuse, sexual abuse, neglect, emotional abuse), reiterating the complex nature of child maltreatment and family violence.

As recognition of interpersonal violence as a critical societal problem increases, greater attention has also been paid to the link between intimate partner violence and child maltreatment in both research and policy. However, because these forms of violence are usually addressed by separate social service systems and by researchers studying only one form of victimization (Edleson, 1999), a comprehensive understanding of their co-occurrence is lacking.

Two different approaches have typically been used to assess this relationship: (1) use of samples derived from child welfare systems to identify the incidence of IPV, and (2) use of domestic violence and homeless shelter samples to assess the incidence of child maltreatment (National Clearinghouse on Child Abuse and Neglect Information, 2001). Based on estimates from these two types of studies, 30 to 60 percent of families experiencing either type of violence are simultaneously affected by the other form of violence (Edleson, 1999). While, these results probably overstate the *rate* of co-occurrence in a more general population, they clearly underestimate the *number* of cases in which both forms of violence occur because they do not capture violence that is undetected by either service system. In one of the few prospective assessments of IPV and child maltreatment, IPV between caregivers during the first six months of a child's life was found to significantly predict substantiated reports of physical child abuse, psychological child abuse, and child neglect up to the child's fifth year of life (McGuigan and Pratt, 2001).

In addition to understanding the extent to which different forms of family violence co-occur, it is important to consider the various ways in which such relationships emerge. Intimate partner violence may co-occur with child physical abuse if the perpetrator uses harsh physical discipline or force with children,

but it may also stem from the adult victim's efforts to overdiscipline children in an attempt to avoid "rocking the boat" in the household, or from the adult victim's diminished tolerance for or ability to manage parenting stresses. Violence between adults may also lead to child neglect through parenting and mental health problems associated with an adult caregiver's victimization, such as depression or substance abuse.

Although the present study does not assess the mechanisms connecting one form of family violence to another, it does shed light on which forms of violence tend to co-occur within generations. This information may be used in future research to explore the complex pathways between intimate partner violence and child maltreatment in greater detail, both within and across generations.

Intergenerational Transmission of Child Maltreatment

The rate of the intergenerational transmission of child maltreatment has been estimated to range from 7 percent to 70 percent (Egeland, Jacobvitz, and Papatola, 1987; Egeland, Jacobvitz, and Sroufe, 1988; Gil, 1970; Hunter and Kilstrom, 1979; Straus, 1979a). Some studies have shown that the majority of abusing parents were also abused as children (Herrenkohl, Herrenkohl, and Toedter, 1983; Milner and Chilamkurti, 1991; Pears and Capaldi, 2001; Steele and Pollock, 1974), and that parents with histories of abuse or neglect or exposure to harsh parenting practices during childhood are also more likely to engage in similar behavior with their own offspring (Merrill, Hervig, and Milner, 1996; Straus, Gelles, and Steinmetz, 1980; see also Black, Heyman, and Slep, 2001; Kolko, 2002).

The intergenerational transmission of violence hypothesis states that children who are maltreated are more likely to grow up to become maltreating parents than are children who are not victimized. This hypothesis has been a part of professional literature for several decades. As early as the 1960s, researchers (e.g., Kempe, Silverman, Steele, Droegemueller, and Silver, 1962; Steele and Pollock, 1968) put forth the claim that acts of aggression and aggressive behaviors between family members tend to continue across generations. By the late 1970s and 1980s, several other renowned child welfare experts placed great

emphasis on this hypothesis (Gelles, 1980; Kadushin, 1974; Steinmetz, 1977; Straus et al., 1980). Garbarino and Gillam (1980) sum up the prevailing view of this period:

The premier developmental hypothesis in the field of abuse and neglect is, of course, the notion of intergenerational transmission, the idea that abusing parents were themselves abused as children and that neglect breeds neglect. This idea is, by and large, firmly established in the minds of professionals and the general public alike. It makes sense intuitively; we learn how to be a parent from our parents (p. 111).

Despite assertions supporting the intergenerational nature of violence, others have raised questions about the validity of this hypothesis (Cicchetti and Aber, 1980; Kaufman and Zigler, 1987, 1989, 1993; Stark, 1985; Widom, 1989). Even Garbarino and Gillam (1980) later questioned their own statements and revealed that this leading hypothesis had not yet "passed scientific muster" (p. 111). Kaufman and Zigler (1987, 1993) state that, while there is some truth to the implication that abuse is cyclical and that a proportion of parents who were abused as children will become abusive, the majority will not. Even though being maltreated as a child does increase one's propensity for becoming abusive, the path between these two events is "far from direct or inevitable" (Kaufman and Zigler, 1987, p. 190).

Intergenerational Transmission of Intimate Partner Violence

Several studies have focused on the intergenerational occurrence of IPV, and the results are conflicting. Kalmuss (1984) found evidence that being physically abused as a child and observing physical violence between one's parents are both strongly related to involvement in severe marital aggression as an adult, and witnessing IPV is the stronger predictor of later IPV. Heyman and Slep (2002) found that women exposed to both IPV and child physical abuse had a significant risk of maltreating their own children, as well as of adult IPV perpetration and victimization, compared to women exposed to single forms of family violence. Findings by Straus et al. (1980) and Steinmetz (1977) also lend support to the intergenerational transmission of IPV; however, the results of a meta-analysis of the relationship between witnessing or experiencing family violence during childhood and perpetrating or experiencing

violent behaviors in an adult marital or partnered relationship suggest only a weak to moderate relationship (Stith, Rosen, Middleton, Busch, Lundeberg, and Carlton, 2000).

Problems in Conducting Research on Intergenerational Violence

There are several potential reasons for the discrepant findings from recent research on the intergenerational transmission of violence. First, protective factors could diminish the likelihood of abusive behaviors being repeated across generations (Kaufman and Zigler, 1987, 1993; Hunter and Kilstrom, 1979). For example, Widom (1989) suggests that a child's natural abilities, psychological predispositions, and social supports may mediate the effects of child abuse. Egeland, Jacobvitz, and Sroufe (1988) found that repeaters of family violence were less likely to have had one parent who provided love and support during childhood, reported more stressful life events, and were less likely to be involved in a supportive adult partner relationship.

Second, the severity and frequency of family of origin aggression, the degree of identification with the aggressor, and any cumulative effects of witnessed and experienced aggression are not often addressed in research, but they are likely to affect any long-term consequences of violence. For example, Egeland, Jacobvitz, and Papatola (1987) found evidence supporting different outcomes related to child maltreatment based on the severity of abuse experienced as a child. These authors state that the more severe the abuse experienced by the abusing parent (i.e., the mother), the greater the likelihood the mother would continue this abusive pattern with her own children. In contrast, Egeland et al. (1987) found that those mothers who reported experiencing the most "mild" forms of physical abuse during their own childhood were generally not abusive toward their own children. Such factors make any concrete predictions of future behavior difficult and imprecise (MacEwen, 1994).

Third, much of the research on the intergenerational transmission of violence relies upon clinical versus community samples, and on retrospective versus prospective designs. Most often, these designs are combined (Egeland, 1993). Less evidence in support of the intergenerational hypothesis has been found using prospective studies that address the probability of a parent maltreating his or her own child as a

function of childhood victimization. The estimates raised by retrospective and prospective studies are related, yet they involve different base rates of intergenerational transmission (Tomison, 1996). According to Egeland (1993), the rate of abuse across generations is high when looking backward; when looking forward, the rate of abuse is likely to be lower. Kaufman and Zigler (1987, 1993) claim that the intergenerational hypothesis is overstated due to overreliance on estimates of the rate of transmission of abuse across generations using retrospective studies.

THEORY

The intergenerational transmission of violence hypothesis has been used extensively in the child maltreatment and domestic violence literature to explain the continuity of family violence. This hypothesis has relied on several theories, including social learning theory (Feshbach, 1980; Stith et al., 2000), attachment theory (Egeland, Jacobvitz, and Papatola, 1987; Egeland, Jacobvitz, and Sroufe, 1988), ecological or multifactor approach (Belsky, 1980; Langeland and Dijkstra, 1995), and biological or genetic theories of aggressive behavior (Muller, Hunter, and Stollak, 1995).

One of the most common theories espoused in the existing literature is social learning theory. According to this theory, behaviors are learned by modeling the observed behaviors of others (Akers, 1977; Bandura, 1977, 1979). When applied to the cycle of violence, this theory postulates that maltreated children learn violent behaviors from their parents and/or other adult models and subsequently use these learned violent behaviors in their adult lives and/or with their own children (Feshbach, 1980).

However, when applied to the intergenerational transmission of IPV, particularly for women, a slightly different mechanism may be at work. Once involved in an abusive relationship, some women may find strategies for avoiding or resisting violence by a partner or flee from the violent relationship, while other women may adopt a "learned helplessness" response (Walker, 1977-78, 1983) to violence. Learned helplessness theory implies that feelings and perceptions of helplessness may be learned from childhood experiences of uncontrollability (Walker, 1983). Childhood experiences that may increase a feeling of helplessness may include large family size, lack of affection, and family violence. The learned

helplessness theory states that susceptibility to being a victim is a socially learned behavior that often begins in the family of origin (Walker, 1977-78). We consider this mechanism as a possible explanation for intergenerational connections across various forms of family violence. However, we do not view mechanisms suggested by social learning or learned helplessness theories as deterministic, since rates of intergenerational transmission of violence do not suggest that all, or even most, individuals victimized during childhood become perpetrators or victims in adulthood.

PRESENT STUDY

Researchers and professionals have tended to use *the intergenerational transmission of violence* and *the cycle of violence* in loose and interchangeable ways to represent various meanings (Widom, 1989). In their work, Kaufman and Zigler (1987, 1993) focused primarily on the understanding that abused children become abusive parents, while other scholars focus more on the idea that abused or neglected children develop aggressive and delinquent behaviors which later lead to violence and criminal activity in adulthood (Widom, 1989; Widom and Maxfield, 2001).

For the purposes of this paper, our interpretation of this hypothesis reflects the work of Kaufman and Zigler (1987, 1993) and Egeland, Jacobvitz, and Sroufe (1988) in focusing on the hypothesis that abused children grow up to be abusive parents. Our study also applies the intergenerational transmission of violence hypothesis to IPV; we hypothesize that children who are exposed to IPV in their family of origin are more likely to participate in a violent intimate partner relationship in adulthood. In our analysis, we explore the following research questions:

1. To what extent do various forms of family violence co-occur during childhood and during adulthood?

2. Are specific forms of family violence during childhood associated with the similar or different forms of family violence in adulthood?

3. Are there particular forms of childhood family violence that are associated with the cooccurrence of family violence in adulthood?

RESEARCH DESIGN AND METHODS

Sample and Data Sources

This research takes place within the context of an ongoing panel study, the Illinois Families Study (IFS), which involves an initial sample of 1,899 families who were receiving welfare cash benefits in 1998. The IFS sample was stratified by region to ensure adequate representation from mid-size and small urban areas as well as rural regions. The response rate for the first wave of data collection was 72 percent (N=1,363), and the retention rates for the second and third waves were 87 percent (N=1,283) and 91 percent (N=1,072), respectively. The average time period between waves is approximately one year. Analysis weights are used to adjust for sampling stratification and survey nonresponse. More detail on the study design, including the sampling strategy and survey methodology, has been published elsewhere (Lewis, Shook, Stevens, Kleppner, Lewis, and Riger, 2000; Slack, Holl, Lee, McDaniel, Altenbernd, and Stevens, 2003).

For the present analyses, data from the first three waves of in-person survey interviews with respondents are used, in conjunction with administrative data from the Illinois Department of Children and Family Services on child maltreatment reports from January 1980 through June 2002. All respondents were asked for their permission to access these data in relation to their families; 93 percent of IFS respondents provided this consent. We exclude 36 respondents from the Wave 3 survey who did not grant permission for administrative data access. Comparisons of consenters and nonconsenters (not shown) did not yield statistically significant differences on any of the forms of family violence under study, from either childhood or adulthood. We further exclude 22 males and 6 respondents who were not the biological or adoptive parent of one or more children in their care. Males were excluded because the intergenerational dynamics of maltreatment and victimization have been found to differ among males and females (Gelles, 1976; Heyman and Slep, 2002; O'Leary and Curley, 1986; Pagelow, 1981; Rosenbaum and O'Leary, 1981). Nonparent respondents were excluded because the dynamics of violence may involve more than two generations, which could bias to results. Our final sample size is 1,005.

MEASURES

Dependent Variables

For this study, we rely on formal child welfare system indicators of child maltreatment derived from administrative data. Specifically, we focus on reports of child maltreatment, regardless of whether they are "substantiated" or not. Previous research has shown that the outcomes associated with families whose reports are substantiated and unsubstantiated are similar (Leiter, Myers, and Zingraff, 1994), and that most unsubstantiated reports either involve maltreatment or service needs related to the prevention of maltreatment (Drake, 1996). The incidence of alleged child maltreatment in our sample is 31.3 percent over the period for which data were available from the child protective system. We refine child maltreatment reports further according to the type of maltreatment allegation (i.e., physical abuse, neglect, and risk of harm). Neglect includes allegations of inadequate food, clothing, shelter, medical care, or supervision. Risk of harm allegations involve likely future situations of either abuse or neglect. Sexual and emotional abuse victimization are excluded from this study due to their extremely low incidences within our sample.

IPV victimization within the past 12 months occurred among 4.2 percent of our Wave 1 respondents, among 6.3 percent of our Wave 2 respondents, and among 5 percent of our Wave 3 respondents. Lifetime IPV victimization was 36.8 percent by Wave 3 of the IFS, which represents the IPV outcome measure for this analysis. In Wave 1, we rely upon a measure of severe forms of physical IPV, which includes three items from the Massachusetts study of women on welfare (Allard, Albelda, Colten, and Cosenza, 1997), which are adapted from the Conflict Tactics Scale (Straus, 1979b). Intimate partner physical violence items include: "Has any current or former spouse or partner ever hit, slapped, or kicked you?"; "...thrown or shoved you onto the floor, against a wall, or down stairs?"; or "...hurt you badly enough that you went to a doctor or clinic?" Respondents were verbally asked these questions by a survey interviewer and respondents who answered, "yes" to any of these questions were assigned a "1" on this outcome; all other respondents were assigned a "0". IPV in Wave 3 was assessed using six modified

items. Physical violence items include: "Has any current or former spouse or partner ever hit, slapped, or kicked you?"; "...pushed, grabbed, or shoved you?"; "...hit you with a fist?"; "...hit you with an object that could hurt you?"; "...beat you?"; or "...choked you?" Respondents replied to these items via a self-report survey and responses were assigned either a "1" or "0" as in Wave 1. Lifetime IPV includes respondents who answered "yes" to any of the above items in either Wave 1 or Wave 3.

Independent Variables

Family Violence History

Four single-item, self-reported measures of respondents' childhood experiences captured child physical abuse, sexual abuse, neglect, and witnessing domestic violence. The four items asked include: "When you were growing up, was there an adult in your household who was physically violent or abusive to another adult in the household?"; "How many times do you remember this person severely physically punishing you or physically abusing you?"; "As a child, do you feel like you were seriously neglected by a parent or caregiver?"; and "Has a stranger, friend, acquaintance, date, or relative ever tried or succeeded in doing something sexual to you or made you do something sexual to them against your wishes?" An affirmative response to the last question was followed with a question asking, "How old were you the first time this happened?" Only cases involving respondents under the age of 18 were coded as victims of childhood sexual abuse for the current analysis. All four variables were dichotomized so that "1" reflects a history of each form of maltreatment and a "0" reflects no history of maltreatment. Similar to the procedure used for estimating IPV in the sample, these questions were verbally asked and answered in Wave 1 of the IFS, but answered in the context of a self-report survey in Wave 3. Respondents who answered affirmatively to any of the above items in either wave were coded as having experienced childhood violence.

Other Control Variables

Other control variables include whether a respondent gave birth to her first child as a teenager, high school or GED completion, race/ethnicity (Hispanic and non-Hispanic white were included as two dummy variables; the omitted category is non-Hispanic black), no history of marriage (compared to all other marital statuses), and age at the time of first employment. We also control for a number of other childhood history variables, including whether the respondent's family of origin received welfare during all or part of her childhood, father's level of education, mother's level of education, whether the respondent lived with both of her parents all or part of her childhood, whether the respondent lived with both of her parents all or part of her childhood history variables (i.e., family welfare receipt and each parent's education level), three additional dummy variables for missing values were included, enabling us to retain observations where information on the original variables were missing without biasing the results.

Although the annual surveys contained a broad array of additional measures that potentially influence child maltreatment and IPV, these measures could not be dated in relation to the occurrence of our outcomes. For this reason, we included only those measures that could reasonably be assumed to precede maltreatment of the respondent's own children, or her adulthood victimization by an intimate partner.

The means and standard deviations associated with key independent and dependent variables are reported in Table 1. The initial average age of respondents is 31 years and 58 percent of respondents have never married; 63 percent gave birth to their first child when they were less than 20 years old. Eighty-one percent of respondents identify themselves as non-Hispanic blacks; 12 percent are of Hispanic origin, and 7 percent are non-Hispanic whites. Half of the respondents have earned a high school diploma or GED, and approximately one-fifth reported that they were held back for at least one year when they were in school. Twenty percent of respondents reported that they lived with both parents for part of the time

Variable Description	Mean (SD)
Family Violence Characteristics	
(Childhood)	
Physically abused as child	.25 (.43)
Exposed to IPV as child	.29 (.45)
Sexually abused as child	.12 (.33)
Felt neglected as child	.08 (.27)
(Adulthood)	
IPV victimization	.37 (.48)
Ever reported for abuse or neglect	.31 (.46)
Ever reported for neglect	.23 (.42)
Ever reported for physical abuse	.13 (.33)
Ever reported for risk of physical harm	.14 (.35)
Demographic and Family Structure Characteristics	
Age in Wave 3 (years)	33.43 (8.19)
Never married	.58 (.49)
Teenage parent	.63 (.48)
Race/ethnicity	
Non-Hispanic black	.81 (.39)
Non-Hispanic white	.07 (.25)
Hispanic	.12 (.33)
Received high school diploma/GED	.50 (.50)
Ever held back a grade in school	.21 (.41)
Lived with both parents until age 16	
Part of the time	.20 (.40)
All of the time	.44 (.50)
Ever live in foster care while growing up	.04 (.20)
Family history of welfare receipt	
Yes	.43 (.50)
No	.52 (.50)
Don't know	.05 (.21)
Father's education	
Less than high school	.13 (.33)
At least high school/GED	.30 (.46)
Missing/Don't know	.57 (.50)
Mother's education	
Less than high school	.23 (.42)
At least high school/GED	.45 (.50)
Missing/Don't know	.31 (.46)

Table 1Descriptive Statistics (N=1.005)

during their childhood; 36 percent never lived with both parents and 44 percent lived with both parents all of the time. Four percent spent some of their childhood in foster care. Forty-three percent of respondents had a childhood family history of welfare receipt. Thirty percent of respondents' fathers had at least a 12th grade education, and 46 percent of respondents' mothers had the equivalent; however, more than half of respondents did not know the education level of their fathers and 31 percent did not know the education level of their fathers and 31 percent did not know the education

With respect to adulthood family violence, 31 percent of sample members were reported to the child protective system (CPS) for some form of child abuse or neglect and 37 percent have a history of adult IPV. Twenty-nine percent of the sample was exposed to childhood IPV, 25 percent were physically abused, 12 percent were sexually abused, and 8 percent felt they were neglected as children.

Analysis

Given the lack of information on the risk and protective factors associated with various forms of IPV and child maltreatment, as well as the lack of studies that rely on more general population samples (as opposed to samples derived from CPS caseloads or domestic violence shelters or service agencies), this study contributes new and critical information to the understanding of the etiologies of family violence. Although reliance on a sample of welfare recipients still presents problems with respect to the generalizability of findings, we contend that this population is an important risk group on which to focus our research questions, since rates of both forms of family violence are markedly higher in populations of welfare recipients than in the general population (Allard et al., 1997; Ards, Myers, Chung, Malkis, and Hagerty, 2003; Nagel, 1998; Roper and Weeks, 1993; Wilt and Olson, 1996), and therefore presents a possible target for interventions aimed at reducing the occurrence, co-occurrence, and intergenerational transmission of family violence.

We conduct correlational analyses to assess the degree of association between different forms of family violence within and across generations. Logistic regressions are conducted to predict the various forms of adulthood family violence (i.e., IPV victimization during adulthood, and allegations of physical

abuse, neglect, and risk of harm pertaining to one's own children). We do not include substance abuse, emotional abuse, or sexual abuse allegations in our analyses due to their low incidence in the sample. Lastly, we conduct a multinomial analysis to determine which factors or combinations of factors place families at greater risk for IPV, child maltreatment, or both forms of interpersonal violence, with particular attention to the primary caregiver's history of physical abuse, sexual abuse, neglect, and exposure to IPV. This analysis sheds light on whether particular childhood factors are unique to adulthood IPV and child maltreatment, or common to both forms of violence.

RESULTS

Table 2 presents the results of correlational analyses depicting associations between different forms of family violence within and across generations. It is important to remember that the focus of these relationships is the recipient of the welfare grant who was identified as the primary caregiver of one or more children in the home at the time of the IFS surveys. While this individual is identified as the victim of all forms of childhood violence addressed in this analysis, she is the likely alleged perpetrator of child maltreatment pertaining to her own children.¹ With respect to adulthood IPV, she is identified only as a victim, and not as a perpetrator, given the nature of the survey questions on this topic.

Table 2 shows that moderate, statistically significant correlations exist between all four forms of childhood violence, and the strongest association is for childhood physical abuse and witnessing parental IPV (r=.52, p<.01). During adulthood, respondents' IPV victimization is weakly correlated with child maltreatment reports concerning her own children (r=.10, p<.01). This relationship seems to be driven by weak associations with reports of all three types of maltreatment measured in this analysis (e.g., physical abuse, neglect, and risk of physical harm). Physical abuse reports related to respondents' children are

¹Administrative data on child maltreatment allegations do not specify the alleged perpetrator by name, only by relation to the child. In most cases, the "natural parent" is the alleged perpetrator. This may mean, in some cases, that a biological father is the alleged perpetrator. However, since the majority of the IFS respondents have never been married, and most do not live with intimate partners as of each survey wave, it is likely that the vast majority of allegations linked to a natural parent pertain to the mother.

Table 2 Correlations (N=1,005)									
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
Child physical abuse (1)	1.00								
Childhood neglect (2)	.30***	1.00							
Childhood sexual abuse (3)	.38***	.20***	1.00						
Childhood IPV (4)	.52***	.23***	.34***	1.00					
Lifetime IPV (5)	.31***	.13***	.28***	.29***	1.00				
Any CPS report (6)	.06*	.06*	.06*	.04	.10***	1.00			
Physical abuse report (7)	.06*	.04	.06*	.03	.08**	.57***	1.00		
Neglect report (8)	.09***	.11***	.07**	.04	.11***	.80***	.40***	1.00	
Risk of harm report (9)	.09***	.05	.07**	.01	.08***	.59***	.52***	.53***	1.00

*p<.10; **p<.05; ***p<.01

moderately associated with reports of neglect and risk of physical harm (r=.40, p<.01; .52, p<.01, respectively), and reports of neglect of respondents' children are moderately associated with reports of risk of harm (.53, p<.01).

In terms of cross-generational correlations, weak to moderate associations emerge. The strongest correlations are between adulthood IPV and three forms of childhood violence (physical abuse, sexual abuse, and witnessing IPV). These associations range from .28 to .31 (p<.01). Contrary to expectation, associations between the same forms of violence (e.g., physical abuse-physical abuse; neglect-neglect) across generations are weak, and for physical abuse, the correlation is only marginally statistically significant (p<.10). However, a relationship exists between childhood physical abuse and risk of harm allegations pertaining to respondents' children. Since risk of harm allegations capture risk of future harm from both physical abuse and neglect, this may provide some support for the intergenerational transmission of physical abuse, although we cannot know for certain which form of maltreatment drives the observed intergenerational association.

Table 3 presents the results from logistic regressions predicting various forms of family violence in respondents' adulthood families. Controlling for family of origin characteristics, the only forms of adulthood family violence associated with childhood victimization are risk of harm and IPV, although childhood neglect is a marginally significant predictor of neglect of one's children during adulthood. Childhood physical abuse raises the likelihood of a risk of harm allegation pertaining to one's own children (odds ratio=2.04, p<.01). Interestingly, all forms of childhood family violence, with the exception of neglect, are positively associated with adulthood IPV. Being physically or sexually abused as a child or witnessing parental IPV as a child increased the risk of this adulthood outcome by 200 percent to 300 percent. The weak association between childhood and adulthood neglect that emerged in the correlational analysis remains statistically significant in the multivariate analysis when other childhood factors are controlled; the weak association between childhood and adulthood physical abuse does not retain significance.

Logistic Regressions ^a (N=1,005)										
	Physical Abuse		Neglect/Inad. Supervision		Risk of Harm		IPV			
Variable Name	Coefficient (SE)	Odds Ratio	Coefficient (SE)	Odds Ratio	Coefficient (SE)	Odds Ratio	Coefficient (SE)	Odds Ratio		
Childhood physical abuse	.27 (.28)	1.41	.37 (.22)	1.45	.71 (.27)***	2.04	.95 (.20)***	2.58		
Childhood neglect	11 (.39)	.90	.57 (.30)*	1.76	05 (.37)	.95	.00 (.30)	1.00		
Childhood sexual abuse	.23 (.30)	1.26	.12 (.25)	1.12	.19 (.30)	1.21	1.10 (.25)***	2.99		
Childhood IPV	14 (.26)	.87	16 (.21)	.85	42 (.26)	.66	.69 (.18)***	1.99		
Teenage parent	.22 (.23)	1.25	.14 (.18)	1.15	.09 (.22)	1.09	.44 (.17)***	1.55		
Received HS diploma	84 (.23)***	.43	67 (.18)***	.51	45 (.21)**	.64	07 (.16)	.93		
Hispanic	16 (.36)	.86	85 (.32)***	.43	.06 (.32)	1.06	.35 (.25)	1.42		
White	.04 (.40)	1.04	.47 (.30)	1.60	.87 (.33)**	2.38	.67 (.30)**	1.94		
Never married	15 (.22)	.86	10 (.17)	.90	.11 (.21)	1.12	49 (.16)***	.61		
Employed before age 20	01 (.24)	.99	.21 (.20)	1.23	.06 (.24)	1.06	.01 (.18)	1.01		
Childhood family history of AFDC	.34 (.22)	1.40	.52 (.18)***	1.68	.22 (.22)	1.24	20 (.17)	.82		
Childhood family history of AFDC= don't know	-1.03 (.76)	.36	.01 (.42)	1.01	-1.20 (.75)	.30	59 (.41)	.55		
Father's highest grade	.04 (.06)	1.04	02 (.04)	.99	.00 (.06)	1.00	03 (.04)	.98		
Father's education missing	.23 (.43)	1.26	.16 (.33)	1.18	.87 (.42)**	2.39	.11 (.29)	1.12		
Mother's highest grade	.05 (.05)	1.05	.06 (.04)	1.06	.03 (.04)	1.03	.08 (.03)**	1.08		
Mother's education missing	.39 (.29)	1.47	.06 (.23)	1.06	12 (.26)	.89	18 (.21)	.83		
Lived with both parents for part of time until 16	.06 (.27)	1.06	16 (.23)	.85	77 (.32)**	.47	16 (.21)	.85		
Lived with both parents all of the time until 16	.01 (.25)	1.01	.40 (.20)**	1.49	.31 (.24)	1.37	00 (.19)	1.00		
Ever repeated a grade	06 (.24)	.94	.06 (.19)	1.06	.17 (.23)	1.18	.38 (.18)**	1.47		
Ever in foster care during childhood	1.09 (.41)***	2.98	.60 (.37)	1.83	.65 (.42)	1.91	.27 (.40)	1.31		
Age in Wave 3	.00 (.01)	1.00	.02 (.01)*	1.02	.02 (.01)	1.02	.02 (.01)**	1.02		
Constant	-3.01 (1.00)***	.05	-2.96 (.79)***	.05	-3.59 (.98)***	.03	-2.48 (.69)***	.08		

Table 3 ogistic Regressions^a (N=1.005

^aWeighted analyses.

* p<.10; ** p<.05; *** p<.01

Several other childhood factors are associated with adulthood family violence. Having a high school education reduces the likelihood of all forms of maltreatment pertaining to one's own children; being of Hispanic origin (compared to non-Hispanic blacks) reduces the likelihood of neglect; non-Hispanic whites are more likely than non-Hispanic blacks to have reports of risk of harm related to their children and to have been victimized by an intimate partner during adulthood. Never having married is associated with a lower likelihood of adulthood IPV. Having a family of origin who received welfare is associated with an increased risk of neglect related to one's own children, and having lived in foster care during childhood significantly increases the likelihood of physical abuse of one's children (controlling for childhood victimization). Living with both parents for all of one's childhood is, contrary to expectation, associated with an increased risk of a neglect allegation during adulthood, compared to those who lived with a single parent for their entire childhood. Also unexpectedly, the higher the educational level of a respondent's mother, the greater the likelihood of adulthood IPV victimization.

Table 4 presents results from the multinomial analysis, which predicts different combinations of family violence occurring during adulthood (i.e., co-occurring child maltreatment and IPV, IPV only, and child maltreatment [of any form] only). Compared to respondents with no adulthood IPV or allegations of maltreatment related to their children, histories of childhood sexual abuse or childhood physical abuse triple the likelihood of the co-occurrence of IPV and child maltreatment in adulthood. Childhood physical abuse, sexual abuse, and witnessing IPV are all positively associated with the occurrence of only IPV during adulthood. No childhood victimization is associated with the occurrence of adulthood maltreatment (i.e., maltreatment perpetrated against one's own children) only.

As in the logistic regressions, higher education is associated with lower likelihoods of all combinations of family violence in adulthood. Hispanic respondents are less likely to be reported for only child maltreatment (compared to non-Hispanic blacks) and non-Hispanic whites are more likely than non-Hispanic blacks to experience both forms of family violence in adulthood. Never marrying is inversely associated with the co-occurrence of IPV and child maltreatment and with IPV only; childhood family

Multinomial Regression ⁻ (N=1,005)									
	IPV aı	nd CM	DV O	only	CM Only				
Variable Name	Coefficient (SE)	Odds Ratio	Coefficient (SE)	Odds Ratio	Coefficient (SE)	Odds Ratio			
Childhood physical abuse	1.07 (.29)***	2.91	.93 (.24)***	2.53	.04 (.31)	1.04			
Childhood neglect	.08 (.40)	1.09	06 (.37)	.94	.03 (.45)	1.03			
Childhood sexual abuse	1.12 (.33)***	3.05	1.05 (.29)***	2.87	07 (.41)	.93			
Childhood IPV	.61 (.27)**	1.84	.70 (.22)***	2.02	02 (.27)	.98			
Teenage parent	.38 (.24)	1.46	.18 (.19)	1.20	40 (.21)*	.67			
Received HS diploma	41 (.23)*	.66	33 (.19)*	.72	-1.07 (.21)***	.34			
Hispanic	.26 (.33)	1.29	36 (.30)	.70	-2.47 (.55)***	.08			
White	.98 (.41)**	2.65	.54 (.38)	1.72	.03 (.41)	1.14			
Never married	83 (.23)***	.44	44 (.19)**	.64	02 (.21)	.98			
Employed by age 20	10 (.26)	.91	.20 (.22)	1.22	.39 (.23)*	1.47			
Childhood family history of AFDC	04 (.24)	.96	17 (.19)	.85	.47 (.21)**	1.60			
Childhood family history of AFDC= don't know	22 (.51)	.81	-1.64 (.62)***	.19	-1.78 (.69)***	.17			
Father's highest grade	00 (.05)	1.00	02 (.04)	.98	.07 (.06)	1.08			
Father's education missing	.66 (.43)	1.94	.02 (.33)	1.02	.55 (.42)	1.73			
Mother's highest grade	.13 (.05)***	1.14	.04 (.04)	1.04	03 (.05)	.98			
Mother's education missing	03 (.31)	.97	22 (.26)	.80	02 (.28)	.98			
Lived with both parents for part of time until 16	32 (.32)	.73	19 (.25)	.83	34 (.26)	.71			
Lived with both parents all of the time until 16	.36 (.27)	1.43	06 (.22)	.94	.13 (.24)	1.14			
Ever repeated a grade	.47 (.25)*	1.61	.12 (.22)	1.13	53 (.26)**	.59			
Ever in foster care during childhood	.89 (.47)*	2.44	46 (.54)	.63	17 (.63)	.85			

Table 4 Multinomial Regression^a (N=1.005)

^aWeighted analyses. * p<.10; ** p<.05; *** p<.01

welfare receipt is positively associated with child maltreatment only; and having repeated a grade during childhood is positively associated with the combination of IPV and child maltreatment in adulthood (marginally significant), but negatively associated with child maltreatment only. Not knowing whether one's family of origin received welfare is inversely associated with IPV only and child maltreatment only.

DISCUSSION

The results from our analyses raise important issues with respect to the intergenerational transmission of family violence. Since much of the existing research focuses on only one form of violence across generations, our knowledge of the mechanisms at work may be largely based on misspecified models. Such studies may tend to " gloss over" the complexities of this phenomenon when they do not account for the occurrence of multiple types of family violence within generations. As an example, our findings suggest that physical abuse during childhood is moderately correlated with sexual abuse, neglect, and witnessing IPV during childhood. Furthermore, a weak correlation exists between physical abuse during childhood and physical abuse of one's own children in adulthood. However, when controlling for other forms of childhood violence (with or without other covariates; latter analysis not shown), the cross-generational relationship for physical abuse does not emerge.

In our analyses, while we do not find strong support for the intergenerational transmission of physical abuse, we do find some evidence of an intergenerational relationship for neglect and for IPV. The occurrence of each during childhood is predictive of the same form of violence in adulthood, controlling for other covariates. The cross-generational relationships of these types of violence have been significantly understudied relative to physical abuse, and our analyses suggest that these other aspects of intergenerational transmission should be further explored in research.

Much of the previous literature relies on a social learning theory of learned or modeled behavior in explaining the transmission of the same form of violence across generations. Our findings that three of four forms of childhood violence (physical abuse, sexual abuse, and witnessing IPV) are highly predictive of adulthood IPV victimization raise important questions about the mechanisms underlying the

intergenerational transmission hypothesis. We find support for the theory of learned helplessness, whereby children maltreated or exposed to violence during childhood may be more likely to be victimized as adults. In other words, they may be learning or modeling "victim" behaviors, as opposed to behaviors associated with the perpetration of maltreatment. Given that our multinomial analysis showed that various forms of childhood violence are either associated with the occurrence of only IPV in adulthood or *both* child maltreatment and IPV in adulthood (and not child maltreatment only in adulthood), it is critical to consider the nature of adulthood victimization in any study of the intergenerational transmission of maltreatment. Where support for an intergenerational hypothesis is found in other research, it is possible that various forms of childhood maltreatment are linked to adult perpetration of maltreatment *through* IPV. Studies exploring the mediation role of IPV in the intergenerational hypothesis are needed to explore this possibility in more detail.

Several caveats should be considered with respect to our analyses. First, we rely entirely upon retrospective data, a limitation that is common to much of the research on the intergenerational transmission of family violence. However, unlike much of the existing research, our study does not rely upon a sample derived from populations already identified for family violence. Instead, we rely upon a sample demonstrated to have a higher risk for family violence—families receiving welfare—but who have not been selected from client systems that address family violence (i.e., domestic violence shelters, child welfare systems).

Due to the difficulty in measuring child maltreatment using parental self-reports, it may be considered advantageous that we rely upon child protection administrative data to measure child maltreatment by respondents. However, it is important to consider that this measure of child maltreatment pertains only to families who are "noticed" and reported to the child welfare system for reasons of abuse or neglect. The processes leading to detection of child maltreatment may be different from the processes leading to actual maltreatment (regardless of its detection). Furthermore, IPV may play a significant role in the detection of child maltreatment by child welfare systems. Both of these possibilities may influence

our findings to some extent, so that the relationships that emerge between various forms of violence, both within and across generations, may in part reflect mechanisms related to detection of violence by a service system.

Our other measures of family violence were collected using self-reports by respondents. Such data are subject to errors in recall and to response biases. We have tried to minimize these potential biases by assessing childhood family violence and adulthood IPV using different modes of data collection (i.e., face-to-face reporting in Wave 1, confidential self-reports in Wave 3); nevertheless, there may be response biases inherent in each mode of data collection that remain.

Respondents have differing periods of "risk exposure," given their ages in relation to the administration of the IFS survey. We attempt to control for this by including respondent's age in the statistical models; however, this strategy does not overcome the statistical bias that may arise with time-censored data. Event history analytical techniques would be more effective in addressing this bias (Yoshihama and Gillespie, 2002). Because we do not have the exact dates of occurrence for adulthood IPV, and we also wanted to compare findings across different forms of family violence, this statistical technique could not be applied in the current investigation.

Our analyses do not control for potentially important factors associated with family violence, such as substance use, depression, and physical health. In order to preserve the order or timing of predictors in relation to adulthood family violence, we had to limit our predictors to those that reflect respondents' childhoods. We have only limited information on childhood characteristics and, as a result, the relationships that emerge between childhood family violence and adulthood family violence in our analyses may be misspecified to the extent that they are influenced by key omitted variables. Despite this limitation, we are able to control for several key factors in childhood, including family structure, educational level of respondents' parents, and family welfare status, as well as any foster care episodes during childhood. This last factor is important to control because it reduces the likelihood that the effects we find related to childhood family violence are actually an artifact of experiences in out-of-home care. Finally, it is important to remember that our study focuses on low-income women, and we lack a measure that assesses IPV *perpetration* among these women. We also cannot be certain whether the reports of maltreatment derived from administrative data are related to respondents or to another parent of one or more children in the home.

CONCLUSION

We find that all four forms of childhood family violence (i.e., physical abuse, sexual abuse, neglect, and witnessing IPV) are statistically correlated; and the strongest relationship is between witnessing IPV and physical abuse victimization. Respondents who have experienced IPV in their adult relationships are also more likely to have been reported for neglect or risk of harm related to their own children, although these associations are relatively weak. Stronger correlations exist among different forms of child maltreatment related to one's own children. With respect to the intergenerational transmission of family violence, we find that a childhood history of family violence is unrelated to the physical abuse of one's own children, but a childhood history of physical abuse is positively associated with reports of risk (but not occurrence) of physical harm to respondents' own children. Respondents with histories of physical abuse, sexual abuse, and exposure to IPV are more likely to experience IPV victimization during adulthood.

Our empirical evidence as a whole has several implications for prevention and intervention programs in the area of family violence. First, we may not achieve significant effect if such programs focus on only one form of violence. Of particular importance is the ability to address IPV in the context of child maltreatment prevention or intervention programs, both as a means of effectively addressing the current context of family violence and as a strategy for reducing the risk of a child's potential IPV victimization in adulthood.

Second, assessment of child maltreatment risk should include assessments of childhood exposure to multiple forms of family violence. We should not assume that physical abuse during childhood is the most salient predictor of child physical abuse in adulthood.

In addition, the intergenerational risk of maltreatment of one's own children may be indirect in nature, with adulthood domestic violence operating as a possible mediator. Parenting interventions to prevent or reduce child maltreatment should consider the role of adulthood victimization as it affects a parent's ability to care for her children.

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