Household and Neighborhood Contexts of Intimate Partner Violence

Greer Litton Fox, PhD^a Michael L. Benson, PhD^b

SYNOPSIS

Objectives. Two sources of contextual risk on the prevalence and severity of intimate partner violence (IPV) are investigated: household economic condition and neighborhood disadvantage. There is debate about whether each context is an independent source of IPV risk and whether risks cumulate over contexts.

Methods. Data from the second wave of the National Survey of Families and Households are combined with tract level data from the 1990 U.S. Census. A sub-sample of co-resident couples with a child aged 5–17 in the household was selected for analysis (n=2,273). IPV is measured in three ways: as any physical violence reported by either partner in the year prior to the survey, as gendered violence in which both partners are identified as aggressors, and as severe violence in terms of injury and frequency.

Results. Regardless of how IPV is assessed, couples with IPV are more likely to present a vulnerable economic risk profile and to live in neighborhoods of high disadvantage. When economically vulnerable couples living in advantaged versus disadvantaged neighborhoods are compared, there are no significant differences in rates of IPV, regardless of the measure of IPV that is used. Neighborhood context matters, however, in comparisons among economically advantaged couples: rates of IPV are significantly higher among those in disadvantaged neighborhoods.

Conclusions. The consistency of effect for economic vulnerability and its invariance across neighborhood settings suggests that reducing economic vulnerability is likely to have beneficial effects in both disadvantaged and non-disadvantaged neighborhoods.

Address correspondence to: Greer Litton Fox, Department of Child and Family Studies, University of Tennessee, Knoxville, TN 37996-1917; tel. 865-974-0748; fax 865-974-2742; e-mail <glfox@utk.edu>.

©2006 Association of Schools of Public Health

^aDepartment of Child and Family Studies, University of Tennessee, Knoxville, TN

^bDivision of Criminal Justice, University of Cincinnati, Cincinnati, OH

Using data from a nationally representative survey and tract-level data from the 1990 Census, we investigate the intersection of two sources of contextual risk on the prevalence and severity of intimate partner violence (IPV). The sources of contextual risk are the economic profile of the household and the level of disadvantage of the neighborhood. Specifically, we ask how patterns of IPV vary across different levels of household economic stress and neighborhood disadvantage. Is the link between economic status and IPV conditioned by the nature of the neighborhood setting? In neighborhoods of concentrated disadvantage, do couples who are economically secure show the same levels of violence as economically vulnerable couples? Does IPV increase as sources of risk cascade or cumulate?

This study plumbs several fault lines in contemporary research on intimate partner violence. First, by differentiating between male-to-female violence and female-to-male violence, we directly engage the controversy about the prevalence and meaning of women's violent aggression in couple-based violence.¹⁻⁵ Second, we also speak indirectly to the applicability of two competing perspectives on IPV: the family violence perspective, which looks for explanations of violence without regard to gender of perpetrator or victim; and the patriarchal control perspective, which views men's violent aggression as a tool for maintenance of a gendered hierarchy of control.⁶⁻⁹ These two competing perspectives have been linked to couple-based patterns of violence, including common couple violence and intimate terrorism, and we are able to approximate these two patterns in our analyses.^{3,10}

Third, our focus on contextual factors in a couple's social ecology permits us to go beyond the more common focus on individual-level explanatory factors in IPV and try to capture processes operative at an extra-individual level. The relative effectiveness of potential explanatory factors at different levels of analysis has seldom been assessed in a simultaneous model, although the relevance of economic factors to IPV has been identified consistently in research on IPV.^{11–15} The relevance of neighborhood characteristics to social behavior has a lengthy history of studies of street crime and other forms of social deviance. More recently, neighborhood effects in willingness to report incidents of IPV and prevalence of IPV have been found.4,16-18 Some have suggested that the nature of contextual risks is less important than their number. 19 That is, it is the accumulation of risk that is the critical factor. One of the issues that can be investigated here is whether contextual factors operate in concert, such that couples who face a high risk household economic

environment along with a high risk neighborhood environment face double jeopardy in terms of their susceptibility to intimate partner aggression. This is the so-called "dual hazard" hypothesis.²⁰

In sum, in this report we compare two contextual or social ecological risks—vulnerable economic status and neighborhood disadvantage—in terms of their independent and joint association with three different aspects of couple-based physical aggression: the presence of any physical violence between the partners, the participation of both partners in aggression, and the severity of physical aggression. In so doing, we shed light on several current issues of approach and interpretation in research on IPV.

HOUSEHOLD ECONOMIC STRESS, NEIGHBORHOOD DISADVANTAGE, AND INTIMATE PARTNER VIOLENCE

Household economic stress comprises the objective and subjective aspects of employment and income.²¹ Objective conditions such as poverty or unemployment indicate a household under economic stress. In addition, feelings of anxiety and worry about finances or one's employment stability may also indicate economic stress

Evidence linking economic stress to IPV is not hard to find. Although IPV is found in all social classes, rates tend to be higher in families of lower socio-economic status who are experiencing unemployment or underemployment.²² Other research has found that economic stress predicts individual and family outcomes, including family conflict and marital dissatisfaction.^{23,24}

Several causal mechanisms have been proposed to explain the link between economic stress and IPV. Obviously, financial problems may lead to increased conflicts between partners and to feelings of stress that are expressed as physical aggression by either partner. Males experiencing job instability or poor earnings may feel especially frustrated or humiliated by their inability to provide for their families. These feelings may provoke them to use violence in verbal confrontations with their partners as a way of establishing their authority. Taylor For example, MacMillan and Gartner found that employed wives whose husbands were unemployed were at greater risk of spousal aggression than wives in dual employment or dual unemployment partnerships. The several response to the several response

The association between neighborhood disadvantage and violent crime rates (not including IPV) has been shown repeatedly.^{27–30} To interpret these links, theorists have long relied on, and in recent times extended, ideas

 \Diamond

drawn from social disorganization theory.^{31–34} Recently, investigators have explored whether neighborhood disadvantage also influences IPV. 4,16,35,36 Although theory explaining the relationship between neighborhood disadvantage and IPV is not yet well developed, several plausible hypotheses have been advanced. Garrett and Libbey suggest that family violence is more likely in disadvantaged neighborhoods because the residents of these neighborhoods are socially isolated from one another.37 This isolation means that the victims of family violence cannot count on support from neighbors to help them stop or resist their victimization. Drawing on ideas developed by Sampson and Wilson, Benson et al. theorize that residents of disadvantaged neighborhoods that are low on collective efficacy may be unwilling to call the police in cases of domestic disputes. 34,36 Their unwillingness may arise out of their weak ties to their neighbors or their acceptance of a general community norm that people are expected to mind their own business and stay out of the personal affairs of others. Even if most residents personally disapprove of IPV, they may be reluctant to express their disapproval openly. In this environment, violently inclined individuals may act aggressively against their partners because they have little to fear from either their neighbors or the police.

Although there is evidence that both economic distress and neighborhood disadvantage are linked to IPV, it is not clear whether these risk factors operate additively, interactively, or completely independently. The dual-hazard hypothesis would suggest that economically vulnerable couples located in disadvantaged neighborhoods are especially at risk of IPV because of the accumulation of risk factors.²⁰ In a relevant analysis, Lauritsen and Schaum found an apparent interaction effect between family type and neighborhood disadvantage on women's risk of IPV.4 They found that single women with children in disadvantaged areas had a higher risk of IPV than similar women in more well-to-do areas. Lauritsen and Schaum, however, did not look at the relationship between family economic vulnerability and neighborhood disadvantage as risk factors for IPV.

METHODS

This project relies upon secondary analysis of a data set constructed from two separate sources of data. We utilized the first two waves of the National Survey of Families and Households (NSFH),³⁸ a nationally representative sample survey of households that includes data on IPV as well as a range of individual and family

measures. Census tract data were also abstracted from the 1990 U.S. Census³⁹ and added as case-level indicators of the sociodemographic and ecological context in which the individual respondent and household resided.

Data

Completed in 1988, the first wave of the NSFH included interviews with a probability sample of 13,007 adult respondents, representing 9,637 households. Faceto-face interviews were conducted with a randomly selected primary respondent from each household. To facilitate the collection of sensitive information, portions of the interview with the primary respondent were self-administered. In Wave 1, the respondent was given a paper instrument to fill out without the assistance of the interviewer, while in Wave 2 the respondent completed a computer-assisted form. The interviews lasted one hour and forty minutes on average. The primary respondent's spouse or cohabiting partner, hereinafter referred to as the *secondary respondent*, was given a shorter self-administered questionnaire.⁴⁰

In Wave 2, completed in 1994, interviews were conducted with all surviving members of the original sample (n=10,005, or 77% of respondents at Wave 1) and with the current spouse or cohabiting partner of the primary respondent (n=5,624). Interviews were also conducted with the spouse or partner of the primary respondent in cases where the relationship had ended (n=789).³⁸ This article is based on a sub-sample of 2,273 households in which the adult respondents were married or cohabiting at Wave 2 and in which at least one biological, step, or adopted child (aged 5–17) of the primary respondent was present.

Measures

Violence. In Wave 2 of the NSFH, both the primary and secondary respondents were asked if arguments became physical during the past year. Respondents were then asked how often during the past year fights with the respondent's spouse or partner resulted in the respondent becoming "physically violent" with the partner. If the response was affirmative, a question asking how often such fights resulted in the spouse or partner becoming physically violent with the respondent followed. There were five response categories, ranging from 0 to 4 or more. Next, respondents were asked whether any incident had resulted in the victim being "cut, bruised, or seriously injured." In any of the questions, if the parties to the couple disagreed

in their reports about violence, we used the report of whichever respondent reported more violence.

These questions were used to create the couple's violence profile, which consisted of the following categories: (1) neither partner reported violence by either party, (2) either or both partners reported violence by the female partner only, (3) either or both partners reported violence by the male partner only, (4) either or both partners reported violence by both partners, and (5) either or both partners reported violence but the directionality of the violence could not be determined. This non-directional measure of violence indicates that at least one member of the couple reported that arguments in the past year had gotten physical, but the respondent did not complete the questions regarding who the aggressor was. The prevalence of couple violence over the past year in this sub-sample is found by aggregating across categories 2-5.

The seriousness of violence against partners in intimate relationships can vary from a simple shove to homicide. The measures available in the NSFH are not well-suited to capturing extremely serious forms of violence. Nevertheless, because severity of violence is an important issue, we developed a measure to assess variation in the seriousness of violence in the NSFH using the limited information available. To assess the seriousness of violence in the partnership, we created ordinal measures that combined information on the number of violent incidents and on injuries. The violence severity variable groups couples into three categories: no violence; one-time violence without injury; and two or more violent incidents or violence with injury. This measure assesses the seriousness of IPV without regard to gender of offender or victim.

Risk profiles. In developing a profile of household economic risk, we created quasi-family contexts that vary by the level of risk, following the example of Wikstrom and Loeber. 41 Their strategy was to categorize families into low, balanced, or high risk contexts based upon selected risk and protective factors. Following their approach, we have done the following: based upon the frequency distribution of scores, we divided each component indicator into three categories using the 25th and 75th percentiles as cut points. A score of -1was assigned for "low risk," 0 for "mixed" or "medium" risk, and +1 for "high risk." The household economic risk profile is a composite score, cumulated over the component factors and then categorized in the same way as "low," "medium" or "mixed," and "high" risk, with the 25th and 75th percentiles as cut points.

The couple's household economic risk profile (Cronbach's alpha=0.60) comprised five variables. The

family's debt load (up to seven debts not including home mortgage or car loans), the father's employment history over the course of the study (as indicated by his spells of unemployment of six months or more), the mother's and father's feelings of economic well-being (as indicated by financial satisfaction and worry), and the family's income-to-needs ratio are used to assess whether households can be considered economically "vulnerable" (high risk), "balanced" (medium risk), or "secure" (low risk).

Because theory and prior research indicate that the IPV-related effects of community disadvantage are not linear across levels of disadvantage, we used a different strategy to identify community risk. 33,35 The theory of concentration effects predicts that below a certain level there will be little or no relationship between neighborhood disadvantage and various forms of crime. With respect to IPV, prior research supports this expectation. Hence, unlike our economic risk profile, which comprises three categories, our community risk profile has only two.

To measure neighborhood disadvantage, we were guided by the work of Sampson and colleagues. 33,42 Neighborhood disadvantage is based upon five census tract measures, including percent of single parents, percent non-white, percent unemployed, percent of families on public assistance, and percent below the poverty line. After transforming the items to z-scores, we summed them and divided by the number of indicators to form the index of concentrated disadvantage (Cronbach's alpha=0.92). We then divided the resulting continuous variable into two categories at the 75th percentile. 35

Analytic strategy

Our logic is straightforward in these analyses. We start with the expectation that economically distressed couples will show more IPV than economically secure couples. We also expect that couples in high risk, disadvantaged neighborhoods will evince more IPV than couples from more advantaged and lower risk neighborhoods. Recent research supports this expectation. Finally, the dual-hazard hypothesis suggests that couples in economically vulnerable households located in disadvantaged neighborhoods will be doubly at risk of negative interaction patterns, including physical aggression and violence. Description of the straightforward in these doubles are straightforward in these doubles are straightforward.

There are two issues that complicate the interpretation of the effects of couple economic vulnerability and neighborhood disadvantage on IPV: selection effects and confounding effects. On one hand, it is not clear if the association of IPV with high community risk is a product of the community environment itself, or results instead from the tendency of violence-prone couples to live in high risk, disadvantaged communities; that is, the association may merely be a selection effect.

On the other hand, the potential confounding of couple economic disadvantage with neighborhood disadvantage must be considered. If economically vulnerable couples are more likely to live in disadvantaged areas and if neighborhood disadvantage influences IPV, then it will appear that economic vulnerability has a stronger effect on IPV than it really does. In other words, the effects of couple economic vulnerability on IPV may be confounded with neighborhood disadvantage, such that IPV is attributed solely to household economic factors rather than to neighborhood characteristics. In addition, it is not clear that the association between family economic vulnerability and IPV holds uniformly across all kinds of communities. What is needed is to look at both family economic risk and community risk simultaneously to assess whether there is an additive or interactive effect on IPV, and this is what we do in the analyses that follow.

RESULTS

An overview of couple patterns of violence by their marital status and stability between the two waves of the NSFH is shown in Table 1. Looking at the sample as a whole, just over one in six couples (17.9%) reported some IPV in the past twelve months. Of those reporting any violence and for whom directionality of violence can be ascertained (9.5% of all couples), couples who reported that both partners engaged in violence outnumbered couples reporting only male-to-female violence by three to one (6.2% versus 2.0%) and they outnumbered couples reporting only female-to-male violence by nearly five to one (6.2% versus 1.3%). More serious levels of violence, including violence with injury, are reported by less than 5% of this sample. This rate of injurious or repeated violence is comparable to that found by other researchers using representative samples.43,44

As might be expected in a sample of households with school-aged children, stably married couples predominate; they also have the lowest rates of IPV overall over the past twelve months (16.2%). Cohabiting couples show the highest rates of IPV, including serious violence. The chi square analyses suggest that marital status and stability are significantly associated with rates of IPV, consistent with other national surveys of IPV.15,45

Are couples with IPV differentially more likely to live in situations of higher risk on our family economic and neighborhood risk profiles? Table 2 answers unequivocally in the affirmative. Regardless of how IPV is assessed, couples with IPV are more likely to present a vulnerable economic risk profile and to live in neighborhoods of high disadvantage. For example, among couples that reported IPV, 32.3% were economically vulnerable and 27.3% lived in disadvantaged neighborhoods. In contrast, among couples that did not

Table 1. Patterns of intimate partner violence by union status and stability of couples with school-aged children (N=2,273)^a

Couple union status and stability	Percent reporting any physical violence	Percent reporting only female partner is violent	Percent reporting only male partner is violent	Percent reporting both partners are violent	Percent reporting physical violence with injury
Stable married couple (n=1,808)	16.2 (n=293)	1.2 (n=22)	1.6 (n=29)	4.7 (n=85)	3.5 (n=63)
Stable cohabiting couple (n=32)	37.5 (n=12)	3.1 (n=10)	3.1 (n=10)	21.9 (n=7)	16.1 (n=5)
Remarriage or new marriage between waves (n=299)	18.7 (n=56)	1.7 (n=5)	3.0 (n=9)	9.0 (n=27)	7.0 (n=21)
New cohabiting partner at Wave 2 (n=134)	33.6 (n=45)	1.5 (n=2)	4.5 (n=6)	15.7 (n=21)	14.1 (n=19)
Total (<i>N</i> =2,273)	17.9 (n=407)	1.3 (n=30)	2.0 (n=45)	6.2 (n=141)	4.8 (n=109)
χ^2	62.99 ^b				48.65 ^b

^aRefers to union stability or change between Wave 1 and Wave 2 (5–7 year period) in NSFH couples with school-age children. $^{b}p < 0.001$

Table 2. Couple risk profiles by intimate partner violence

Does couple report any intimate partner violence?

	Percent with vulnerable economic risk profile	Percent in neighborhood with high disadvantage
Yes (n=406)	32.3 (n=131)	27.3 (n=111)
No (n=1,867)	16.6 (n=313)	18.3 (<i>n</i> =345)
Chi square	$\chi^2 = 65.9^a$	$\chi^2 = 24.1^a$
Gamma	Γ =0.36 a	$\Gamma = 0.24^a$

Does couple report both partners were violent?

	Percent with vulnerable economic risk profile	Percent in neighborhood with high disadvantage
Yes (n=140)	40.0 (n=56)	30.7 (n=43)
No (n=2,133)	18.0 (n=384)	19.2 (n=410)
Chi square	$\chi^2 = 44.8^a$	$\chi^2 = 15.3^a$
Gamma	$\Gamma = 0.44^a$	Γ =0.39 a

Does couple report physical violence with injury?

	Percent with vulnerable economic risk profile	Percent in neighborhood with high disadvantage
Yes (n=108)	38.9 (n=42)	35.2 (n=38)
No (n= 2,163)	18.3 (n=396)	19.1 (n=407)
Chi square	$\chi^2 = 33.4^a$	$\chi^2 = 21.3^a$
Gamma	Γ =0.45 a	Γ =0.30 $^{\rm a}$

ap≤0.001

report IPV, only 16.6% were economically vulnerable and only 18.3% lived in disadvantaged neighborhoods. Risks—from IPV, economic vulnerability, or neighborhood disadvantage—tend to be closely associated with one another, such that a family subject to one is likely to experience the others as well. However, the risks do not overlap completely, and the association of various combinations of levels of risk with IPV is examined next in Table 3.

Table 3 shows how IPV varies across different combinations of neighborhood disadvantage and household economic risk. In the first panel of Table 3, the proportion of couples who report any physical aggres-

Table 3. Patterns of intimate partner violence in differing contexts of neighborhood disadvantage^a and household economic risk

Household economic risk	Advantaged neighborhood (n=1,703)				
Percent of couples with any physical violence reported					
Vulnerable ($n=441$)	, , ,	32.9	0.107 (0.303)		
Balanced (n=1,194)	15.5	22.3	0.218 (0.009)		
Secure (n=638)	9.4	17.9	0.355 (0.055)		
Gamma (p)	0.372 (0.000)	0.247 (0.005)			
Percent of couples reporting both partners were violent					
Vulnerable (n=441)	12.3	13.4	0.134 (0.176)		
Balanced (n=1,194)	4.6	7.4	0.199 (0.011)		
Secure (n=638)	2.0	9.5	0.361 (0.036)		
Gamma (p)	0.345 (0.000)	0.229 (0.005)			
Percent of couples reporting physical violence with injury					
Vulnerable (n=441)	8.4	12.1	0.103 (0.450)		
Balanced (n=1,194)	3.6	6.6	0.243 (0.039)		
Secure (n=638)	1.3	7.1	0.641 (0.020)		
Gamma (p)	0.492 (0.000)	0.188 (0.104)			

^aDisadvantaged neighborhoods include those in the highest quartile of risk on the neighborhood disadvantage index. Advantaged neighborhoods are all others.

sion is shown; the second panel focuses on couples who report that both were violent; the third panel shows the distribution of serious violence with injury across combinations of risk. An initial comparison of the least risky (economically secure couples in advantaged neighborhoods) to the most risky (economically vulnerable couples in disadvantaged neighborhoods) combinations shows that IPV is considerably more likely to occur in couples in the high-risk situation (32.9% versus 9.4% for any IPV in the past twelve months, 13.4% versus 2.0% for both partners violent, and, 12.1% versus 1.3% for injurious violence).

It is also clear that the patterns for the two risk factors are different. The risks that economic vulnerability poses for IPV are generally strong and stable across situations, as shown by the increasing proportion of couples with IPV and statistically significant gammas as one moves from economically secure to economically vulnerable conditions within each of the neighborhood types. Among couples living in non-disadvantaged neighborhoods, economic vulnerability appears to be linearly associated with the risk of all forms of IPV. In disadvantaged neighborhoods the picture is more mixed. Economic vulnerability is

linearly associated with our broadest measure of IPV in disadvantaged neighborhoods, where the risk of violence decreases from 32.9% for the economically vulnerable to 17.9% for economically secure. However, in cases where both partners report violence or where violence with injury is reported, there is a reversal of sorts in this pattern in disadvantaged neighborhoods. For these measures of IPV, couples who were in the middle in terms of economic vulnerability showed lower levels of violence than those who were more secure economically. Both the balanced and secure categories, however, showed lower levels of violence than the economically vulnerable.

In one sense, these results would appear to support the dual-hazard hypothesis. As expected, economically vulnerable couples who live in disadvantaged neighborhoods display higher levels of IPV than any other risk profile group. But a closer look at Table 3 calls this interpretation into question. When economically vulnerable couples located in different types of neighborhoods are compared (i.e., advantaged versus disadvantaged), there are no significant differences in rates of IPV, regardless of the measure of IPV that is used. In other words, an economically vulnerable couple located in a disadvantaged neighborhood does not face a significantly greater risk of IPV than a similar couple located in an advantaged neighborhood. This result runs counter to the dual-hazard hypothesis. On the other hand, where the level of neighborhood disadvantage does appear to matter is with couples who are more secure economically, particularly where both members report violence and where violence involves injury. For example, for economically secure couples located in advantaged neighborhoods, the percentage of both partners reporting violence is 2.0, but for similarly secure couples in disadvantaged neighborhoods the percentage is 9.5, and the difference is significant. Similar intriguing, counterintuitive, and significant patterns are observed among the balanced couples.

DISCUSSION AND CONCLUSIONS

The choice to engage in physical aggression with one's intimate partner is inherently social behavior subject to a multiplicity of sources of influence. In this article, we have examined two sources of extraindividual influence—the couple's economic condition and the character of the neighborhood in which they live. We anticipated and found that the degree of vulnerability in a couple's household economic context was consistently associated with engagement in IPV, whether assessed as any violence, as conjoint or mutual violence with both partners as attackers and

victims, or as serious violence with injury. Moreover, this relationship was largely consistent with regard to neighborhood context; that is, whether living in advantaged or disadvantaged neighborhoods, the most economically vulnerable couples have the highest likelihood of couple violence.

However, we also anticipated that neighborhood context might by itself influence IPV. Might residence in a "good" neighborhood provide a damper on couple violence, even for those in precarious economic conditions, perhaps through the influence of shared expectations for civility and comity in public and private behaviors? Can economic security forestall IPV in a neighborhood in which nearly everyone is living on the margins of poverty? The findings showed a clear neighborhood effect for the economically balanced and secure couples. However, for the economically vulnerable couples it does not seem to matter where they are located; they always have higher rates of IPV than couples who are under less economic strain. Overall, this pattern of results mirrors what Wikstrom and Loeber⁴¹ found for delinquents. In their study, neighborhood disadvantage had no effect on young people who were at-risk, but it did seem to push "good kids" towards delinquency.41

Thus, in addition to a significant direct effect of economic hardship on IPV, we have a clear indication of a significant direct effect of neighborhood context on those couples who are not economically vulnerable. This pattern of findings calls into question the dual-hazard or double jeopardy hypothesis that economically at-risk couples fare especially badly in disadvantaged neighborhoods. It would appear that neighborhoods affect the economically less vulnerable couples more. The apparent lack of a neighborhood effect on economically vulnerable couples suggests that in these couples IPV is affected more by individual- and couple-level characteristics than by contextual conditions.

The NSFH has been routinely criticized for measuring IPV only in the context of a couple's arguments and for providing a misleading picture of the gendered nature of IPV by overestimating the participation of women as equal combatants in couple violence. ^{5,46} However, other recent research using representative samples also finds substantial amounts of female-to-male violence. Indeed, if there is violence in a relationship, it appears more likely that both members are violent than that only one is. ^{43,44} We have used three measures specifically to allow for an examination of IPV from different vantage points, and throughout our analyses we have found generally similar patterns across all three measures used to assess IPV. It is notable that we find support for the relevance of contextual factors

that supercede individual characteristics, including gender, in accounting for patterns of IPV.

We conclude by returning to our main findings about the importance of social contexts to IPV. Given the consistency of effect for economic vulnerability and its invariance across neighborhood settings, it is especially disconcerting to note that economic distress and uncertainty affect increasing numbers of Americans. Our findings suggest that the private behaviors of couples in their homes cannot be separated either from their local neighborhood settings or from the larger political economy, and that as economic despair begins to displace economic confidence, an increase in the prevalence of IPV will not lag far behind.

On the other hand, our failure to find support for the dual-hazard hypothesis may have positive implications. If the hypothesis were true, this would suggest that reducing IPV among economically vulnerable couples would be especially difficult in disadvantaged neighborhoods. IPV would be a function of two things—economic vulnerability and neighborhood disadvantage—one of which is extra-individual. Programs to reduce IPV that focused exclusively on helping individuals overcome economic vulnerability would be less effective in these neighborhoods. However, our results suggest that the dual hazard hypothesis is not correct with respect to IPV. Reducing economic vulnerability is likely to have beneficial effects in both disadvantaged and non-disadvantaged neighborhoods.

REFERENCES

- Archer J. Sex differences in aggression between heterosexual partners: a meta-analytic review. Psychol Bull 2002;126:651-80.
- Graham-Kevan N, Archer, J. Intimate terrorism and common couple violence. J Interpers Violence 2003;18:1247-70.
- 3. Johnson MP, Ferraro KJ. Research on domestic violence in the 1990s: making distinctions. J Marriage Fam 2000;62:948-63.
- Lauritsen JL, Schaum RJ. The social ecology of violence against women. Criminology 2004;42:323-58.
- White JW, Smith PH, Koss MP, Figueredo AJ. Intimate partner aggression—what have we learned? Comment on Archer. Psychol Bull 2000:126:690-6.
- Dobash RE, Dobash RP. Violence against wives: a case against the patriarchy. New York: Free Press; 1979.
- Gelles RJ, Straus MA. Determinants of violence in the family: toward a theoretical integration. In: Burr W, Hill R, Nye I, Reiss I, editors. Contemporary theories about the family. Vol. 1. New York: Free Press; 1979.
- Gelles RJ, Straus MA. Partner violence: the causes and consequences of abuse in the American family. New York: Simon & Schuster; 1000
- Straus, MA. Wife beating: how common and why? Victimology 1978; 2:443-458.
- Johnson MP. Intimate terrorism and common couple violence: two forms of violence against women. J Marriage Fam 1995;57:283-94.
- DeMaris A, Benson ML, Fox GL, Hill T, Van Wyk J. Distal and proximal factors in domestic violence: a test of an integrated model. J Marriage Fam 2003;65:652-67.
- Fox GL, Benson ML, DeMaris A., Van Wyk J. Economic distress and intimate violence: testing family stress and resource theories. J Marriage Fam 2002;64:793-807.

- Macmillan R, Gartner R. When she brings home the bacon: laborforce participation and the risk of spousal violence against women. J Marriage Fam 1999;61:947-58.
- Straus MA, Gelles RJ. Societal change and change in family violence from 1975 to 1985 as revealed in two national surveys. J Marriage Fam 1986:48:465-79.
- Tjaden P, Thoennes N. Full report of the prevalence, incidence, and consequences of violence against women. Washington: National Institutes of Justice. NCJ183781; 2000.
- Miles-Doan R. Violence between spouses and intimates: does neighborhood context matter? Social Forces 1998;77:623-46.
- DeKeseredy WS, Alvi S, Schwartz MD, Perry B. Violence against and harassment of women in Canadian public housing: an exploratory study. Can Rev Sociol Anthropol 1999;36:499-516.
- Van Wyk JA, Benson ML, Fox GL, DeMaris A. Detangling individual, partner, and community-level correlates of partner violence. Crime Delinq 2003;49:412-38.
- Sameroff AJ, Seifer R, Zax M, Barocas R. Early indicators of developmental risk: Rochester Longitudinal Study. Schizophr Bull 1987;13:383-93.
- Brennan PA, Raine A. Biosocial bases of antisocial behavior: psychological, neurological, and cognitive factors. Clin Psych Rev 1994;17:589-604.
- Voydanoff P, Donnelly BW. Economic distress, family coping, and quality of family life. In: Voydanoff P, Majka L, editors. Families and economic distress. Newbury Park (CA): Sage Publications; 1988.
- Straus MA, Gelles RJ, Steinmetz SK. Behind closed doors: violence in the American family. New York: Doubleday/Anchor; 1980.
- Conger RD, Elder GH Jr., Lorenz FO, Conger KJ, Simons RL, Whitbeck LB. Linking economic hardship to marital quality and instability. J Marriage Fam 1990;52:643-56.
- Fox GL, Chancey D. Sources of economic distress: Individual and family outcomes. J Fam Issues 1999;19:725-49.
- Babcock JC, Waltz J, Jacobson NS, Gottman JM. Power and violence: the relation between communication patterns, power discrepancies, and domestic violence. J Consult Clin Psychol 1993;61:40-50.
- Sugarman DB, Hotaling GT. Violent men in intimate relationships: an analysis of risk markers. J Appl Social Psychology 1989;19: 1034-48.
- Byrne JM, Sampson RJ. The social ecology of crime. New York: Springer-Verlag; 1986.
- Messner SF, Tardiff K. Income inequality and levels of homicide: an analysis of urban neighborhoods. Criminology 1986;24:297-313.
- Sampson RJ. Neighborhood family structure and the risk of personal victimization. In: Byrne JM, Sampson R, editors. The social ecology of crime. New York: Springer-Verlag; 1986.
- Sampson RJ, Groves WB. Community structure and crime: testing social disorganization theory. Am J Sociol 1989;94:774-802.
- Shaw CR, McKay HD. Juvenile delinquency and urban areas. Chicago: University of Chicago Press; 1942.
- Bursik RJ. Social disorganization and theories of crime and delinquency: problems and prospects. Criminology 1988;26:519-51.
- Sampson RJ, Morenoff JD, Earls F. Beyond social capital: spatial dynamics of collective efficacy for children. Am Sociol Rev 1999; 64:683-60
- 34. Sampson RJ, Wilson WJ. Toward a theory of race, crime, and urban inequality. In: Hagan J, Peterson RD, editors. Crime and inequality. Stanford (CA): Stanford University Press;1995.
- Benson ML, Fox GL, DeMaris A, Van Wyk J. Neighborhood disadvantage, individual economic distress and violence against women in intimate relationships. J Quantitative Criminology 2003;19: 907-95.
- Benson ML, Wooldredge J, Thistlethwaite AB, Fox GL. The correlation between race and domestic violence is confounded with community context. Soc Probl 2004;51:326-42.
- 37. Garrett A, Libby H. Theory and research on the outcomes and consequences of child abuse and neglect. Proceedings of the Child Abuse Intervention Planning Meeting; 1997 Oct 3; Washington, DC. Washington: National Institute of Justice; 1997.
- 38. Sweet JA, Bumpass LL. The National Survey of Families and Households B Waves 1 and 2: data description and documentation [cited 2006 Mar 29]. Madison (WI): Center for Demography and Ecology, University of Wisconsin–Madison; 1996. Available from: URL: http://ssc.wisc.edu/nsfh/home.htm
- 39. Census Bureau (US). U.S. Census 1990 [cited 2006 Apr 4].

- Washington: Department of Commerce, Economics, and Statistics Administration (US), U.S. Census Bureau; 1998. Available from: URL: http://www.census.gov/main/www/cen1990.html Sweet JA, Bumpass LL, Call V. The design and content of the
- National Survey of Families and Households. Center for Demography and Ecology, Madison (WI): University of Wisconsin, NSFH Working Paper #1; 1988.
 41. Wikstrom P-OH, Loeber R. Do disadvantaged neighborhoods cause
- well-adjusted children to become adolescent delinquents? A study of male juvenile serious offending, individual risk and protective factors, and neighborhood context. Criminology 2000;38:1109-42.
- Sampson RJ, Raudenbush SW, Earls F. Neighborhoods and violent crime: a multilevel study of collective efficacy. Science 1997;277:
- Ehrensaft MK, Moffitt TE, Caspi A. Clinically abusive relationships in an unselected birth cohort: men's and women's participation and developmental antecedents. J Abnorm Psychol 2003;113:258-71.
- 44. Capaldi DM, Owen LD. Physical aggression in a community sample of at-risk young couples: gender comparisons for high frequency, injury, and fear. J Fam Psychol 2001;15:425-40.
- Rennison CM, Welchans S. Intimate partner violence. Special report. Washington: Department of Justice (US), Bureau of Justice Statistics; Report No. NCJ178247: 2000.
- Brush LD. Violent acts and injurious outcomes in married couples: methodological issues in the National Survey of Families and Households. Gend Soc 1990;4:56-67.