Crime & Delinquency
http://cad.sagepub.com/

Detangling Individual-, Partner-, and Community-level Correlates of Partner Violence

Judy A. Van Wyk, Michael L. Benson, Greer Litton Fox and Alfred DeMaris

Crime & Delinquency 2003 49: 412
DOI: 10.1177/0011128703049003004

The online version of this article can be found at:
http://cad.sagepub.com/content/49/3/412

Published by:
SAGE
http://www.sagepublications.com

Additional services and information for *Crime & Delinquency* can be found at:

Email Alerts: http://cad.sagepub.com/cgi/alerts

Subscriptions: http://cad.sagepub.com/subscriptions

Reprints: http://www.sagepub.com/journalsReprints.nav

Permissions: http://www.sagepub.com/journalsPermissions.nav

Citations: http://cad.sagepub.com/content/49/3/412.refs.html

>> Version of Record - Jul 1, 2003

What is This?

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

Detangling Individual-, Partner-, and Community-Level Correlates of Partner Violence

Judy A. Van Wyk
Michael L. Benson
Greer Litton Fox
Alfred DeMaris

This article attempted to identify neighborhood- partner- and individual-level factors that may lead to male-to-female partner violence. The relevant dimensions of community context were derived from social disorganization theory that indicates that disorganized areas lack formal and informal controls that inhibit street violence. Social disorganization theory predicts that there is a higher rate of violence and social isolation in disorganized areas. At the individual level, women who experience less social support will more likely be victimized by partner violence. This article investigates the direct and interactive effects of social disorganization measures and variables from social support theories on male-to-female partner violence. The data come from Wave 2 of the National Survey of Families and Households completed in 1994 and from the 1990 census. Logistic regression was used to assess variation in the independent and dependent variables between and within neighborhood types. Results indicate that neighborhood effects interact with partner- and individual-level characteristics for a more complete explanation for male-to-female partner violence.

Keywords*: partner violence; intimate violence; community; social disorganization; social support; National Survey of Families and Households*

The importance of neighborhood effects is increasingly recognized in criminology, as well as in social science research generally (Sampson, Morenoff, & Earls, 1999). During the past 2 decades—as contextual research on crime and victimization has accumulated—the structural characteristics

JUDY A. VAN WYK: University of Rhode Island. **MICHAEL L. BENSON**: University of Cincinnati. **GREER LITTON FOX**: University of Tennessee. **ALFRED DEMARIS**: Bowling Green State University.

This project was supported by Grant #98WTVX0011 from the National Institute of Justice. Points of view or opinions expressed in this article are those of the authors and do not necessarily reflect the official position or policies of the U.S. Department of Justice. We would like to express appreciation for reviewers' comments and suggestions on earlier drafts of this article.

CRIME & DELINQUENCY, Vol. 49 No. 3, July 2003 412-438
DOI: 10.1177/0011128703253763
© 2003 Sage Publications

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

of neighborhoods that are related to street crime have become increasingly clear (Bursik & Webb, 1982; Miethe & McDowall, 1993; Sampson, Raudenbush, & Earls, 1997; Simcha-Fagan & Schwartz, 1986; Taylor & Covington, 1988). Associations between street crime and such neighborhood features as community socioeconomic status, ethnic heterogeneity, residential stability, family disruption, deteriorated housing, residential overcrowding, and population density are well documented (Byrne & Sampson, 1986; Greenberg, Rohe, & Williams, 1982; Sampson, 1986; Sampson & Groves, 1989).

A key finding of recent research in the social disorganization tradition is that structural characteristics are associated with social organizational processes that influence crime and other conditions in neighborhoods (Sampson et al., 1999; Sampson & Groves, 1989; Sampson & Bartusch, 1997). With respect to crime, the social organizational processes that appear to be most important involve informal social networks of neighborhood residents that influence social control on neighborhood streets (Sampson et al., 1997); Sampson et al., 1999). At the neighborhood level, *social networks* refer to the density and strength of informal social ties between neighborhood residents. Disorganized neighborhoods tend to be characterized by weak social networks— neighbors tend not to know one another well or to interact with one another frequently. In theory, because of weak networks, residents of disorganized neighborhoods have trouble organizing and developing collective solutions to neighborhood problems, such as crime control (Sampson et al., 1999).

Male-to-female partner violence (heretofore referred to simply as "partner violence" for brevity) researchers have focused also on the link between social networks and violence. However, in the case of domestic violence, social networks have been conceptualized at the individual level to refer to the number and strength of ties that an individual has with others, known as social support. Some individuals have extensive social networks and receive a lot of social support, whereas others are socially isolated, that is, they lack strong ties to others. For domestic violence against women, social support is important because research suggests that less support increases women's risk of violent victimization by intimates (Feld & Straus, 1990; Gelles, 1982; Stets, 1991). Jasinski and Williams (1998) argued that social isolation is a common experience for battered women.

Criminologists have focused on the deterrent effects of social support on motivation for common crime, and by implication, the potential it may have for decreasing incidents of victimization (Cullen, 1994). This body of literature, however, does not address the direct effects of individual-level social support on victimization. Neither does it investigate the relative effects of social support at the individual and community levels.

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

It is logical to assume that individual-level social support and aggregate-level social disorganization are related to one another and, in turn, to partner violence against women. Individual social isolation appears to be most prevalent in large urban areas where social disorganization is most common (House, Umberson, & Landis, 1988). Evidence suggests that partner violence is more common in disadvantaged and disorganized urban areas than in other types of communities (Benson, Fox, Van Wyk, & DeMaris, 2000; Miles-Doan, 1998). The apparent association between neighborhood characteristics, individual social support, and partner violence suggests that social disorganization theory may be usefully applied to this form of violence, just as it has been used to further understand other forms of crime.

In this article, we take advantage of a unique data set that was created by merging Wave 2 of the National Survey of Families and Households (NSFH) with tract-level data from the 1990 U.S. Census. This data set permits us to investigate neighborhood- and individual-level correlates of partner violence. Specifically, we focused on the effects of neighborhood characteristics and individual social support. Drawing from social disorganization and social support theories, we investigated whether the likelihood of partner violence varies with the level of neighborhood social disorganization, controlling for individual social support and other couple-level characteristics.

SOCIAL DISORGANIZATION AND PARTNER VIOLENCE

Social disorganization refers to social organizational processes in neighborhoods, in particular the inability of residents to regulate the behavior of persons (whether residents or outsiders) in the neighborhood. Neighborhoods are regulated through private, parochial, and public institutions that serve as sources of social control (Kornhauser, 1978). According to social disorganization theory, certain neighborhood characteristics facilitate crime by reducing the effectiveness of these agents of social control and reducing the actual number of social control agents, such as churches, community organizations, and police patrols.

Residents of socially disorganized areas tend to have weak social bonds to their neighbors (Sampson & Groves, 1989). With respect to ordinary street crime, Sampson and Groves (1989) argued that social isolation among residents in disorganized areas contributes to the residents' inability to establish social control in several ways. Social isolation decreases the ability of residents to recognize strangers, thus weakening guardianship of the neighborhood. Because residents of the community commit most of the crime—where more of the community's population is transient—they are less likely

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

to be recognized and identified by those who guard the community. It also means reduced communication between residents in which information about common problems and their potential solutions is shared, making it more difficult to develop effective restraints on undesirable behavior. Thus, neighborhoods that lack effective restraint mechanisms will experience a greater amount of deviance, because they are too weak to inhibit those within the community who are inclined to deviate (Kornhauser, 1978). Bursik (1988) referred to the process as "a group-level analog of control theory" (p. 521).

Investigations of the effects of social disorganization typically have concentrated on ordinary street crime, but there are a variety of reasons why disorganization also may be related to partner violence. Because of the lack of strong ties between residents in disorganized neighborhoods, residents may not be willing to become involved in domestic disputes by personally intervening, calling the police, or publicly disparaging the aggressor. Violent men may therefore feel free to aggress against their female partners with impunity and with little fear of intervention or shaming from neighbors. The lack of strong social networks between residents may exacerbate partner violence just as it does ordinary street violence in disorganized neighborhoods. In addition, Stark (1987) suggested that law enforcement is more lenient in disorganized areas because the police tend to have little regard for area residents. Hence, men in these areas also may have little to fear from official social control agents.

Some evidence supports the theoretical link between social disorganization and partner violence. Calls to the police that involve domestic disputes tend to come disproportionately from poor minority neighborhoods (Sherman & Berk, 1984). In a recent pioneering effort to investigate contextual effects on partner violence, Miles-Doan (1998) found that neighborhood resource deprivation (as indicated by the absolute poverty level and income inequality) explains a significant amount of the variance in violence against women in partner relationships, as well as community violence in general.[1] Thus, domestic violence appears to be more prevalent in areas that are high in the traditional indicators of social disorganization (DeKeseredy, Alvi, Schwartz, & Perry, 1999).

The theoretical significance of the empirical correlations between neighborhood characteristics and partner violence, however, is not clear. Previous research has been based on official reports. It is possible that the higher rates of officially reported partner violence in disorganized areas may be caused by differential reporting to the police, based on individual and neighborhood characteristics (Miles-Doan, 1998). To get around this problem, it is necessary to gather information on partner violence that is not based on official

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

data. As we describe later, our data come from a survey of the general population, which includes questions about physical aggression between partners.

It is also possible that the structural characteristics of neighborhoods are related to partner violence because of the composition of their resident populations. For example, if low economic status is related to partner violence, then the association of neighborhood economic indicators with partner violence rates would simply reflect that poor people tend to live in poor neighborhoods. This would be a compositional effect. To show that it is some feature of the neighborhood itself that increases the risk of partner violence requires data at the individual and aggregate level. If the structural characteristics of neighborhoods are significantly associated with partner violence after individual-level characteristics have been controlled, this suggests that neighborhoods exert a contextual effect on partner violence.

PARTNER VIOLENCE AND SOCIAL SUPPORT

At the individual level, social support refers to strong reciprocal ties to others. Social support has at least two dimensions: (a) frequency of contact with others, including relatives, neighbors, and coworkers; and (b) the level of assistance that is given to or received by others. This second dimension refers to giving and receiving unpaid assistance from others whom we know personally, whereas the first dimension refers to the number of contacts with others. The two dimensions of social support are related in that by definition completely isolated persons lack access to social support mechanisms. However, it is possible that a person may have plenty of contacts with others, but receive no real means of assistance from them. Thus, it is important to keep the two dimensions separate for empirical investigation.

Theorists argue that the level of social support by way of assistance available to a person influences how he or she responds to stressful events (Cassel, 1974; Cobb, 1976; Cohen & Wills, 1985; Gottlieb, 1981). This explanation has been used to understand how individuals respond to criminal victimizations, such as rape (Feldman-Summers & Ashworth, 1981; Feldman-Summers & Norris, 1984). We suggest that it may also be applied to partner violence.

The two dimensions of social support may be related to partner violence in several ways. First, research suggests that violent men often try to control their partners' contacts with others, that is, to isolate them socially (MacMillan & Gartner, 1999). Overcoming social isolation is a prime function of support groups for battered women (Jasinski & Williams, 1998; Walker, 1994). By keeping their partners isolated from others, violent men

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

reduce the likelihood that their violent behavior will be exposed. Isolation also increases the woman's dependence on the man. In contrast, women who have strong supportive ties with others have friends to whom they can turn in response to partner-violence incidents. These friends can help women who want to leave their abusive male partners, and through their own expressions of disapproval, they may shame abusive men into desisting from their violent behavior. Thus, we hypothesized that both dimensions of social support—contacts and assistance—will be negatively related to partner violence.

CONTROL VARIABLES

Although our primary interest was in the effects of social disorganization and social support, other individual- and couple-level control variables are related to partner violence against women, and ignoring these factors might produce false correlations among our theoretical variables. Informed by previous research, we know that partner violence against women is more likely to occur in newer versus older unions (Feld & Straus, 1990). Cohabiting couples experience more partner violence than do married couples (Stets, 1991), and women aged 18 to 30 are more likely to be victimized than are older women (Gelles & Straus, 1988; Straus, Gelles, & Steinmetz, 1980a; U.S. Department of Justice, 1994; Wolfner & Gelles, 1993).

Minority women suffer relatively high levels of partner violence. Research consistently shows that Black and Hispanic women report more partner violence than White women do (Goetting, 1989; Hampton, Gelles, & Harrop, 1989). Analysis of the 1985 National Family Violence Survey finds that married Black women were 2.36 times as likely as White wives to experience severe partner violence (Hampton & Gelles, 1994).

Individual- and couple-level socioeconomic characteristics appear to be associated with partner violence against women. Women of low socioeconomic status (SES) appear to suffer partner violence at relatively high rates. Analogously, women with low levels of education experience more violence, especially those with less than a high school diploma (U.S. Department of Justice, 1994). In addition, unemployed women, women in families with incomes less than $10,000, and women who hold low-prestige jobs are victimized by partner violence more often than their well-educated and well-off counterparts (Gelles & Straus, 1988; Straus et al., 1980a; U.S. Department of Justice, 1994; Wolfner & Gelles, 1993). Male underemployment or unemployment is associated with wife abuse (Gelles, 1978; Gelles & Straus, 1978; Hornung, McCullough, & Sugimoto, 1981; Kaufman Kantor, Jasinski, & Aldarondo, 1994; McLaughlin, Leonard, & Senchak, 1992; Steinmetz &

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

Straus, 1974). In addition, blue-collar employment is significantly related to higher levels of wife assault (Kaufman Kantor & Straus, 1987; McLaughlin et al., 1992; Stets & Straus, 1989; Straus, Gelles, & Steinmetz, 1980b). Poverty is also a high-risk factor in wife assault and abuse (Conger et al., 1990; Dibble & Straus, 1980; Hotaling & Sugarman, 1986; Straus & Gelles, 1986; Straus & Smith, 1990).

RESEARCH QUESTIONS

The preceding review suggests two important sets of questions. First, is partner violence against women more common in neighborhoods that are more socially disorganized? Related to this question is the issue whether the association between neighborhood characteristics and partner violence reflects a contextual or a compositional effect. In particular, is there a relationship between neighborhood structural characteristics and domestic violence after individual-level characteristics—including social support—are taken into account? To investigate this issue, we examined the relationship between indicators of social disorganization and partner violence, while controlling for individual- and couple-level characteristics known to be associated with partner violence. We assessed differences in outcomes between neighborhood levels of disorganization and within different levels of disorganization. If we found that indicators of disorganization are significantly related to partner violence after individual- and couple-level variables are controlled, we would have evidence for a contextual neighborhood effect on partner violence.

Our second major question involves social support. Are our measures of social support related to partner violence as we hypothesized? Does social support decrease the likelihood of victimization? Is the influence of various types of social support on partner violence equally significant? Do various measures of social support interact with neighborhood conditions to increase the likelihood of partner violence?

METHOD

Data Sources

The data come from Wave 2 of the NSFH, which was conducted from 1992 through 1994 and from the 1990 U.S. Census.[2] The NSFH is a national probability sample in which minorities and cohabiting couples are

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

overrepresented. Wave 2 included interviews with all surviving members of the original sample (N = 10,005) and their partners (n = 5,624). Surveys lasted about 1 hour and 40 minutes, and some portions of the survey were self-administered.

The subsample used for this research includes households in which heterosexual respondents were married, separated, or cohabiting and that had complete data on the variables used in this analysis. This data set includes 6,636 main respondents and 5,407 of their partners. However, because census tract data were not available for 26 couples, most of the analysis was based on 6,610 couples. Census data were not available for main respondents who were in the military, in prison, or not residing in the United States at the time of the interview.

Individual- and Couple-Level Variables

NSFH data. The NSFH contains many of the variables traditionally associated with partner violence, and by including these in the analyses as controls, we considerably improved the statistical power of the analysis. Individual-level and couple-level measures were available in the NSFH. They include age, educational attainment, race, subjective financial satisfaction, duration of union, household income, social support measures, and marital/cohabitation status.

Violence against women. Partner violence is defined as physical violence that women experience at the hands of their heterosexual partners. The NSFH measures partner violence through items asking how often during the past year fights with respondents' spouses or partners became physically violent resulting in the respondent hitting, shoving, or throwing things at the partner. Respondents were also asked how often the partner did these things to them. To measure violence against women, we created a variable that indexed male respondents who admit to physically abusing their partners and female respondents who report victimization by their spouses. Violence was coded so that if either the woman or the man reports male-to-female violence, that couple receives a code of 1 (5.4%) for the presence of violence. If no male-to-female violence was reported, then those couples receive a 0 for no violence.

Social support. A leading researcher on social support, Vaux (1988) proposed, "Researchers recognize that social support is too complex an idea to be restrained as a single theoretical concept" (p. 296). Contacts and assistance represent two of many different dimensions of social networks. The questions referring to contacts for the female partner were worded as, "About

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

how often do you get together socially with relatives, a neighbor, people you work with?" The 11 sources of social contacts include friends, family, the workplace, and professional and recreational activities. Unemployed respondents—who had been coded as not applicable—were recoded as having no contact with coworkers. Factor analyses on these 11 indicators predictably sorted them into three categories: (a) church-related events (two indicators, Cronbach's alpha .78); (b) close friends, relatives, and neighbors (three indicators, Cronbach's alpha .42); and (c) acquaintances that are not close and not church related (six indicators, Cronbach's alpha .61). Three variables representing contacts were created based on the factor analysis results: contacts with church, contacts with close, and contacts with others. For all three variables, higher scores represent greater social support, so we expected to find negative associations between them and the dependent variable partner violence.

All eight indicators of assistance loaded on to the same factor. Thus, the female assistance index was created by summing responses to eight questions that indicate the level of assistance or support that respondents give to and receive from others. Four of the questions measure support given and four measure support received. The four forms of support included help with child care, transportation, work around the house, and advice. Respondents who were childless were recoded from not applicable, to receiving no assistance for child care. The questions were worded as, "We are interested in the help and support that you give to or receive from other people. We are talking here about help that is not paid for." Each question follows similar to, "During the past month, to whom have you given/received the following help: help with baby-sitting or child care from friends, neighbors, coworkers, parents/children, brothers/sisters, or other relatives?" The index ranges from 8 to 32 (Cronbach's alpha .86) with high scores representing greater access to social support.

Controls. Duration of union refers to the length of time that a couple had been together on the date of the interview. Low scores represent shorter unions and high scores represent longer unions.[3] Marital status included married, separated, and cohabiting. Separated couples were included because many separated couples still engage in partner violence, and research indicates that partner violence often leads to marital breakup (DeMaris, 1998). The marital status variable was dichotomous with married and separated respondents combined into the 1st category, and the 2nd category was cohabiters. To measure the SES of the couple, we created an index that combines z scores for couple-level income and education for each partner in the couple.[3]

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

The subjective financial satisfaction (SFS) variable measures the couple's satisfaction with finances that combines partner's scores. SFS is constructed from two items that ask respondents to rate their level of satisfaction with their financial situation and their worry about income sufficiency. Responses include a 6-point Likert-type scale. The combined index ranges from 4 to 24 (Cronbach's alpha = .78). Low scores represent dissatisfaction with finances, and high scores represent satisfaction. Race is also included as a control, coded 0 for Whites and 1 for non-Whites.[4]

Social Disorganization

Census data. Census tracts are the smallest location identifiers available for each respondent in the NSFH.[5] Block-level data, which may more closely represent a neighborhood than a census tract does, was not currently available for all area types that are represented in the NSFH. Block data was not available for many rural areas. Census tract information was assembled for each respondent from the U.S. Bureau of the Census. Combining the NSFH with 1990 census data permits the assessment of community context and individual variation on partner violence.

To measure social disorganization, we selected 14 neighborhood characteristics that closely match traditional indicators of social disorganization as guided by the theory. They include percentage of overcrowded households; percentage of single parents; percentage non-White; racial heterogeneity; four socioeconomic indicators that include percentage with low education, percentage on public assistance, percentage below the poverty line, and percentage unemployed; residential mobilization within the past year and within the past 5 years; vacant buildings; urbanization; percentage young men; and visible street people. [6]

Factor analysis on these 14 indicators is represented in Table 1. Factor loadings identify 4 different factors. Factor 1 includes population density, single parents, percent non-White, racial heterogeneity, low education, unemployment, poverty, and public assistance. Factor 2 includes the two residential mobilization indicators and urbanization; Factor 3 isolates a single indicator—vacant buildings—as does Factor 4—visible street people. Factor loadings for percentage of young men are equally distributed across the 1st and 2nd factors.

The indicators that load on to the 1st factor reasonably represent the theoretical notion of social disorganization and are similar to those used by Simcha-Fagan and Schwartz (1986). Nonetheless, they do not directly measure social disorganization but instead represent economic structural disadvantage, which can lead to social disorganization through diminishing social

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

TABLE 1: Factor Analyses of 14 Census Variables (*N* = 6,610)

	Component			
Indicator	*1*	*2*	*3*	*4*
Population density	.618	–.137	–.157	.231
Single parents	.855	.151	–.002	–.004
Non-White (%)	.833	.006	–.278	.003
Racial heterogeneity	.562	.278	–.389	.123
Low education	.585	–.321	.510	.002
Unemployment	.833	.003	.137	–.000
Poverty	.902	–.001	.144	–.003
Public assistance	.863	.107	.283	.001
Mobilization (1 year)	.007	.944	–.001	.001
Mobilization (5 years)	–.005	.930	–.006	.002
Vacant buildings	.152	.292	.621	–.004
Urbanization	.139	.242	–.782	–.006
Young men (%)	.276	.276	–.002	.258
Visible street people	–.002	.002	.002	.938

NOTE: Extraction method is principal component analysis. Rotation method is Varimax with Kaiser normalization.

control, as the theory indicates. To avoid theoretical and empirical confusion, the index is called *disadvantage* instead of *social disorganization*, and results and conclusions are discussed in keeping with this distinction. Each of these disadvantage indicators was coded in the same direction so that low scores represent low-level disadvantage and high scores represent increased disadvantage. The disadvantage index was created by summing *z* scores for each of the eight indicators (Cronbach's alpha .90). This variable was used in the analyses presented in Tables 2 and 4.

Neighborhood typology. To investigate whether the effects of social support vary across types of neighborhoods, we created a neighborhood typology from the disadvantage index. We divided the index into three parts representing low, medium, and high disadvantage. Cutoff points were estimated from a histogram of the index. The typology was constructed so that the largest proportion of the sample was in the middle category.

To assess the theoretical validity of the typology, we examined the mean scores for each of the individual indicators across the neighborhood types. We expected that the mean scores for the individual indicators would vary systematically across the neighborhood types. For example, the mean score for single parents should be highest for Type 3, lower for Type 2, and lowest for Type 1 neighborhoods. Highly disadvantaged areas should house a larger

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

proportion of single-parent households than areas low on disadvantage. This pattern does persist for each of the indicators. Thus, we concluded that the neighborhood disadvantage typology was reasonably sound and represented a hierarchy of neighborhood disadvantage. This variable was used in the analyses represented in Table 2 and in Figure 1.

RESULTS

Answering the First Set of Research Questions

The first set of research questions are, (a) "Does the likelihood of partner violence increase with neighborhood structural disadvantage?" and (b) "Are the effects of structural disadvantage compositional or contextual?"

Pearson's correlation coefficients and *t* tests for equality of means were used to identify bivariate relationships between partner violence and each of the individual- and partner-level variables and each of the eight separate indicators of disadvantage.[7] All the individual- and partner-level variables significantly correlate with partner violence in their predicted direction except for three of the four social support variables. The social support variable that does significantly correlate with partner violence in the bivariate analyses is *contacts with others*, which refers to acquaintances other than relatives. These findings indicate that the greater the frequency of interaction with acquaintances that are not considered to be close, the lower the likelihood of partner violence. Each of the eight separate indicators of disadvantage significantly correlates with partner violence in their theoretically predicted direction, as does the composite measure of neighborhood disadvantage.

Many of the theoretical and control variables present potential collinearity problems for multivariate analyses. Collinearity diagnostics were assessed among all the independent variables, but due to the large number of variables included in these analyses, the results are not presented in table format here.[8] Multicollinearity diagnostics indicate that collinearity problems exist among the eight indicators of disadvantage, as we would expect to find. These findings further justify the creation of our composite measure of disadvantage. Multicollinearity diagnostics also indicate that age and duration of union, and individual-level race and disadvantage are collinear. Eliminating age from the models does not jeopardize their specification. Age is after all a function of other, more relevant aspects of a union, such as duration, marital status, and financial security. Race is strongly associated with disadvantage (Pearson's r .602, $p = .000$). Because two of the indicators (percentage non-White and racial heterogeneity) used to create the disadvantage variable mea-

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

sure different dimensions of race, this correlation was no surprise. Racial composition was captured in the disadvantage variable; however, our hypotheses aimed to assess the relative effects of concepts, such as race at different levels of measurement. Therefore, models are presented with and without the individual-level race variable. More detailed analysis of individual-level race follows when variation within neighborhood types is assessed.

Because the dependent variable is dichotomous, logistic regression was used to analyze the multivariate effects of the independent variables on the dependent variable.[9] To determine whether neighborhood disadvantage exerts a contextual effect on partner violence, we followed the procedure recommended by Wilson and Herrnstein (1985), and we improved on the statistical power of the analysis by accounting for factors known to be associated with partner violence. We first modeled partner violence using only the individual- and couple-level variables (Models 1 and 2 in Table 2). Then we added the index of disadvantage (Models 3 and 4). Results are presented in Table 2. The first model includes SFS for couples, duration of union, marital/cohabitation status, contacts with others, and SES. The second model also includes race. Models 4 and 5 include disadvantage, one with individual-level race, and one without it.[10]

Only the measure of social support that was shown to significantly affect partner violence in the bivariate analyses (contacts with others) is included in Table 2. In the individual- and partner-level analyses, all the variables—including race—significantly affect the likelihood of partner violence in their predicted direction, except for SES. The likelihood of partner violence increases where partners' SFS was low, duration of union was relatively short, partners were cohabiting versus married, the woman experienced fewer contacts with others, and where she was non-White.

Earlier collinearity diagnostics did not identify any problems for individual-level SES. Wright, Caspi, Moffitt, Miech, & Silva (1999) offered one explanation for this result. They suggested that the traditional assumption about the relationship between SES and violence—that low SES causes violence—is oversimplified and misleading. Some explanations of violence predict that the opposite may be true. Intervening conditions, such as risk-taking behavior for persons with high SES and strain for people with low SES, cancel out the effects of SES on violence in statistical models. Another explanation for the reduced effects of SES on partner violence in these models could be attributed to the subjective assessment of financial satisfaction. It is reasonable to believe that SFS may exert greater influence over individuals than objective measures of SES, and we have found some indication of that assumption here.

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

TABLE 2: Logistic Regression Models: Assessing the Effects of Individual-, Couple-, and Aggregate-Level Characteristics on Male-to-Female Partner Violence (*N* = 6,257; Constant = –2.847)

Independent Variable	*Model 1 Individual- and Partner-Level Variables*	*Model 2 With Individual-Level Race*	*Model 3 With Individual-Level Race and Disadvantage*	*Model 3 Without Race, With Disadvantage*
Disadvantage				
B			0.154	0.210
SE			0.100	0.078
Wald statistic			2.357	7.298**
Race				
B		0.308	0.152	
SE		0.129	0.163	
Wald statistic		5.738*	0.876	
SFS for couples				
B	–0.129	–0.128	–0.128	–0.132
SE	0.015	0.015	0.015	0.015
Wald statistic	73.583***	71.990***	71.411***	75.760***
Duration of union				
B	–0.005	–0.005	–0.005	–0.005
SE	0.001	0.001	0.001	0.001
Wald statistic	57.511***	56.449***	56.377***	54.679***
Marital status				
B	0.560	0.548	0.518	0.524
SE	0.154	0.155	0.156	0.151
Wald statistic	13.144***	12.543***	11.093***	11.977***
Contacts with others				
B	–0.048	–0.050	–0.051	–0.051
SE	0.017	0.017	0.017	0.017
Wald statistic	8.318**	8.957**	9.143**	9.111**
SES for couples				
B	–0.086	–0.070	–0.052	–0.049
SE	0.045	0.045	0.046	0.046
Wald statistic	3.676	2.413	1.285	1.131
	χ^2 = 269.35	Increase = 5.56[a]	Increase = 2.32	Increase = 7.02
p	.000	.018[b]	.127	.008

NOTE: SFS = subjective financial satisfaction. SES = socioeconomic status.
a. Increases are increases compared to the base model.
b. *p* values indicate the significance level for the increase in the new model compared to the base model's chi-square.
*$p < .05$. **$p < .01$. ***$p < .001$.

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

In Models 3 and 4, we added disadvantage. Comparing Models 2, 3, and 4, we concluded that individual-level race was captured to some extent in the neighborhood-level social disorganization variable, as was indicated by the collinearity analyses. Further evidence of collinearity is represented by the model increase diagnostics.

In Model 2, we assessed the increase in the chi-square statistic when race was added to the model containing only individual- and partner-level variables.[11] Adding race to the model increases the chi-square statistic by 5.56 (p = .018).[12] Adding social disorganization to that model (presented in Model 3) increases the chi-square statistic by 2.32, an insignificant increase. However, when disadvantage was added to Model 1, without race, the chi-square statistic increases by a significant amount (7.02, p = .008). These findings indicate that the effects of individual-level race and disadvantage are too confounding to assess adequately in this manner.

We considered two solutions to the problem. One is to enter each indicator of disadvantage into separate models and assess the model chi-square increases for the addition of each indicator separately, omitting race in the models that contain aggregate-level racial variables. The second solution is to separate our sample by different levels of disadvantage and assess the relative effects of each of the individual- and partner-level variables including race, on partner violence within each level of disadvantage. We chose the second solution because it not only adequately addressed the problem but also provided us the opportunity to assess whether the effects we did find were contextual or compositional.

Using our categorical measure of neighborhood disadvantage, we now turn to a more descriptive aspect of the analysis. Categorical analysis was performed assessing the relationship between neighborhood types and partner violence. The histogram presented in Figure 1 clearly illustrates a strong correlation between these two variables in the predicted direction (chi-square = 24.139, p = .000); however, it should be noted that this figure illustrates descriptive information and does not control for extraneous variable effects. We simply wished to illustrate here that there are indeed differences in the likelihood of partner violence for different types of neighborhoods. Further analyses are necessary to establish the nature of this relationship.

Male-to-female partner violence was lowest for couples that reside in neighborhoods that are less disadvantaged (3.5%). It was more likely in neighborhoods in the middle on disadvantage (4.9%). In neighborhoods that are highly disadvantaged, partner violence jumps to 7.9%. These results strongly support theoretical predictions that the likelihood of partner violence significantly increases in more highly disadvantaged neighborhoods.

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

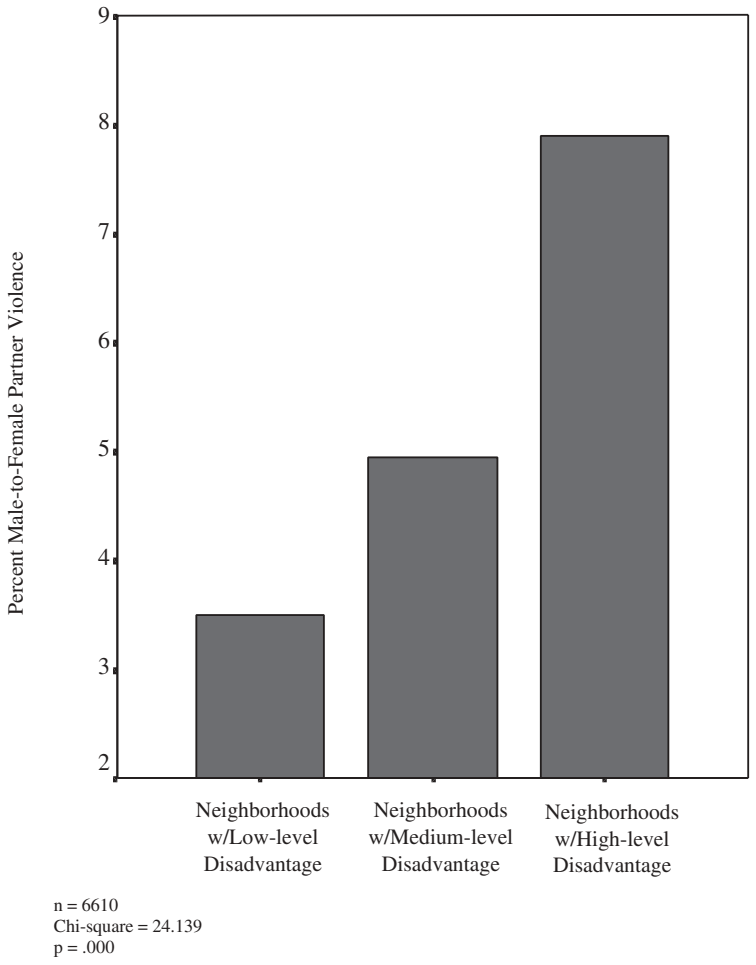

Figure 1: Neighborhood Types by Male-to-Female Partner Violence

In relative terms, the likelihood of violence more than doubles from well-to-do neighborhoods to highly structurally disadvantaged neighborhoods.

Contextual theories of violence indicate that some of the independent variables may affect partner violence differently within each of the three neighborhood types. Assessing differences within neighborhood types also makes it possible to take a closer look at the effects of race on partner vio-

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

TABLE 3: Logistic Regression Models for Neighborhood Typology

Independent Variable	*Low-Level Disadvantage*	*Medium-Level Disadvantage*	*High-Level Disadvantage*
Race			
B	–6.209	0.479	–0.179
SE	17.555	0.191	0.248
Wald statistic	0.125	6.273**	0.519
SFS for couples			
B	–0.181	–0.112	–0.145
SE	0.047	0.019	0.030
Wald statistic	14.879***	34.530***	23.132***
Duration of union			
B	–0.006	–0.005	–0.004
SE	0.002	0.001	0.001
Wald statistic	7.099**	40.503***	9.860**
Marital status			
B	0.506	0.270	0.904
SE	0.513	0.211	0.272
Wald statistic	0.976	1.630	11.083***
Contacts with others			
B	–0.153	–0.049	–0.021
SE	0.054	0.021	0.032
Wald statistic	7.988**	5.180*	0.419
SES for couples			
B	0.027	–0.128	0.061
SE	0.106	0.068	0.103
Wald statistic	0.066	4.374*	0.328
n	928	4,192	1,114
Constant	–3.27	–2.92	–2.37
Chi-square	49.61	157.41	66.22
p	.000	.000	.000

NOTE: SFS = subjective financial satisfaction. SES = socioeconomic status.
*$p < .05$. **$p < .01$. ***$p < .001$

lence, and investigate further the effect of individual-level contacts with others on partner violence.

Logistic regression models were run that included all of the relevant variables for each neighborhood type, and results are reported in Table 3. For areas characterized by a low level of disadvantage, the likelihood of partner violence increases for couples that were relatively unsatisfied with their finances, whose union was shorter, and for women who experienced fewer contacts with others. In areas characterized by a medium level of disadvantage, the likelihood of partner violence increases for couples who were rela-

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

tively unsatisfied with their finances, whose union was shorter, whose SES was relatively lower than their counterparts', for women who experienced fewer contacts with others, and who were non-White. In areas characterized by a high level of disadvantage, the likelihood of partner violence increased for couples who were relatively unsatisfied with their finances, whose union was shorter, and who were cohabiting versus married.

Answering the Second Set of Research Questions

The second set of research questions are, (a) "Do measures of social support decrease the likelihood of partner violence?" (b) "Do different sources and types of social support affect the partner violence differently?" and, (c) "Do different sources and types of social support interact with structural disadvantage to increase the likelihood of partner violence?"

Although previous analyses indicated that three of the four measures of social support were not directly correlated with partner violence, we included all four social support measures in a base model (presented in Table 4) to compare the relative effects of interaction terms to these measures on partner violence. We should note that due to earlier findings on the effects of partner-level SES, that variable was eliminated from further testing. Partner-level financial satisfaction appears to be a stronger indicator of couple-level economic conditions than more objective measures at this level. All other relevant control variables were included in the logistic regression models. All relevant variables significantly affect partner violence in their predicted directions, except for two of the four measures of social support—contacts with church and assistance.

It is important to recall that the measures of social support were derived from the individual level for the female partner in each relationship, whereas the disadvantage variable was a measure of neighborhood structural disadvantage. In each of the successive models (Models 2, 3, and 4), we added a different interaction term testing its effect on partner violence relative to individual effects and other theoretically relevant variables.

In Model 2, the addition of the interaction term *Assistance* × *Structural Disadvantage* increases the model's chi-square by 6.627—a significant increase. The addition of the remaining interaction terms to the base model do not significantly increase the base model's chi-square. More important, however, is the effect that adding the interaction terms has on the relative contribution of neighborhood disadvantage to the models.

In the base model, neighborhood disadvantage exerts a significant influence on partner violence while controlling for all other relevant variables, including each of the measures of social support, but, when each of the inter-

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

TABLE 4: Assessing the Relative Effects of Social Support and Disadvantage (*N* = 6,130; Constant = –.598)

Independent Variable	*Base Model*	*Model 2*	*Model 3*	*Model 3*	*Model 4*
Disadvantage					
B	0.254	–0.506	0.011	–0.266	0.253
SE	0.078	0.313	0.287	0.331	0.541
Wald statistic	10.667***	2.617	0.002	0.643	0.219
SFS for couples					
B	–0.129	–0.128	–0.128	–0.129	–0.129
SE	0.014	0.014	0.014	0.015	0.015
Wald statistic	78.778***	77.913***	78.594***	79.356***	78.635***
Duration of union					
B	–0.005	–0.005	–0.005	–0.005	–0.005
SE	0.001	0.001	0.001	0.001	0.001
Wald statistic	56.871***	57.501***	57.178***	57.119***	56.860***
Marital status					
B	0.518	0.493	0.517	0.520	0.518
SE	0.158	0.159	0.158	0.158	0.158
Wald statistic	10.711***	9.654**	10.676***	10.765***	10.703***
Contacts with others					
B	–0.057	–0.059	–0.058	–0.057	–0.057
SE	0.017	0.017	0.018	0.017	0.035
Wald statistic	10.697***	11.508***	11.036***	10.685***	2.691
Contacts with church					
B	–0.015	–0.013	–0.063	–0.017	–0.015
SE	0.030	0.030	0.061	0.030	0.030
Wald statistic	0.273	0.181	1.068	0.338	0.271
Contacts with close					
B	0.060	0.064	0.062	–0.022	0.062
SE	0.029	0.029	0.029	0.059	0.029
Wald statistic	4.592*	4.821*	4.522*	0.135	4.587*
Assistance					
B	0.019	–0.37	0.020	0.019	0.019
SE	0.011	0.024	0.011	0.011	0.011
Wald statistic	2.829	2.318	2.942	2.863	2.822
Interaction term		Assistance* disadvantage	Church* disadvantage	Others* disadvantage	Close* disadvantage
B		0.036	0.031	0.054	0.000
SE		0.014	0.035	0.033	0.021
Wald statistic		6.480**	0.780	2.653	0.000
	χ^2: 270.817	Increase: 6.627[a]	Increase: 0.790	Increase: 2.661	Increase: 0.000
p	.000	.010[b]	.374	.103	.999

NOTE: SFS = subjective financial satisfaction.
a. Increases are increases compared to the base model.
b. *p* values indicate the significance level for the increase in the new model compared to the base model's chi-square.
*$p < .05$. **$p < .01$. ***$p < .001$.

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

action terms was added to the model successively—each one replacing the last one—disadvantage loses its significant effect on partner violence in each instance. What this means is that every source and type of social support at the individual level interacts with neighborhood structural disadvantage to increase the likelihood of partner violence, even though three of the four interaction terms do not increase the predictive ability of the model.

Interaction terms for neighborhood disadvantage by each of the contact social support variables steals away the independent effect of neighborhood disadvantage on partner violence. The amount of actual assistance given to and received by female partners interacts with neighborhood disadvantage to not only steal away the independent effects of disadvantage on partner violence but also adds to the model's overall predictability. Bivariate assessment of disadvantage and assistance clearly indicates that women experience less assistance in more disadvantaged neighborhoods (Pearson's coefficient = –.999, $p = .000$). The interaction of neighborhood disadvantage and low levels of assistance for women increases the likelihood of partner violence.

DISCUSSION

Context and Composition

Couples who were dissatisfied with their finances and couples whose unions were relatively short were more likely to experience partner violence regardless of the context in which they lived. These results supported a compositional explanation for the high level of violence found in structurally disadvantaged areas, meaning that people whose characteristics were most commonly associated with violence were concentrated into disadvantaged neighborhoods. They exhibited some of the individual-level characteristics that made them more susceptible to partner violence and were more likely to reside in structurally disadvantaged areas. Thus, there was a higher concentration of these couples living in disadvantaged areas, and the data supported this finding.

Nonetheless, race, marital status, and social support from casual acquaintances affect the likelihood of partner violence differently depending on where couples live. These results supported a contextual explanation of partner violence. Something about the neighborhoods determines whether race, marital status, casual acquaintances, and SES were associated with partner violence. However, to be in accord with social disorganization theory, we should have found the strongest correlation between each of the individual-level precursors and partner violence in the most disorganized neighbor-

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

hoods, and we did not. Further explanation and suggestions for our findings are required to explain the contextual results.

Race

With respect to race, well-to-do neighborhoods in the United States are primarily White. In this study, only 3% of couples living in these neighborhoods were non-White. The low level of racial variability within neighborhoods that are well off may restrict the ability to statistically determine the effects of race on partner violence within these neighborhoods.

No effect of race on partner violence against women was found in disorganized neighborhoods either; and in these neighborhoods, 69% of couples were non-White. Variability does not appear to be a problem for assessing the effects of race within highly disorganized neighborhoods. Perhaps the stresses and stains that lead people to violence are high for everyone living in impoverished neighborhoods, regardless of race. In this sample, 11% of couples living in areas with medium levels of disorganization were non-White. Significant racial effects on partner violence were found in these neighborhoods. One explanation for these results might consider the special strains that middle-class non-Whites face versus poor non-Whites. Non-Whites may experience less social support in middle-class neighborhoods that may restrict the means by which female victims can escape the violence.

Given the large body of literature that cautions against confounding the effects of race and SES, these findings are particularly significant. Research testing the effects of race on violence that lumps together all people from all social classes may obscure the true effects of race. Sampson and Bartusch (1999) found evidence that there may be no race-based subculture of violence. Instead, violence is determined by the context of the neighborhood regardless of racial composition. Further investigation of racial effects on partner violence against women that examines the socioeconomic context of those effects is needed.

Social Support

Women who have more contacts with casual acquaintances are less likely to be victims of partner violence in areas representing medium and low levels of social disorganization. More important, they are not less likely to be victims of partner violence in areas that are highly disorganized as we predicted they would be. This finding is interesting, but understandable. Several researchers have found that people from lower SES typically hold more traditional gender-role attitudes than those from higher SES (Bowker, 1983,

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

1985; Smith, 1990). Research has also found that men who hold more traditional gender-role attitudes are more likely to act violently toward their partners (Smith, 1990). Perhaps a culture of acceptance for partner violence exists in highly disorganized and impoverished neighborhoods. If women usually interact with acquaintances from their own neighborhoods, then interaction among acquaintances may actually increase the likelihood of violence instead of diminish it (Anderson, 1999; DeKeseredy at al., 1999). A culture of acceptance may be reinforced through social interaction. Further refinement of the concept of social support is necessary to test this assumption.

Although these results suggest the existence of a contextual effect, they do not support social disorganization theory. From social disorganization theory, we expected a relatively high concentration of socially isolated people to live in highly disorganized neighborhoods. However, they did not. Further analysis indicated that the mean scores for contacts with acquaintances did not significantly differ between neighborhood types. In addition, according to social support theories we would expect to find that women who experienced less social support (regardless of the neighborhood type in which they live) would more likely experience violence. However, again, they did not.

Further analyses of all four measures of social support enhance our understanding of this complex relationship among social support, partner violence, and structural disadvantage. We discovered that the interaction of disadvantage and each of the social support measures helps to explain partner violence better than disadvantage alone or any of the individual social support measures can. Women who receive little social support and live in structurally disadvantaged neighborhoods are at highest risk of partner violence. The strongest model for explaining increases in the likelihood of partner violence includes low satisfaction with finances; a shorter union relative to their counterparts; cohabitation; low contact with casual acquaintances, close friends, and relatives; and the combination of less assistance given to and received from others; and living in a structurally disadvantaged neighborhood. Women who exhibit these characteristics are at the highest risk of partner violence.

CONCLUSIONS

The purpose of this study was to detangle the individual-, partner-, and community-level correlations of partner violence. We confirmed that partner violence was more than twice as likely to occur in highly disadvantaged

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

neighborhoods than in neighborhoods that are relatively well-to-do, and we investigated reasons for this finding.

The variables derived from social disorganization theory significantly added to the explanation of partner violence, however, the explanation for why this occurs cannot be found in the theory. In the presence of all the other indicators, the effects of neighborhood characteristics on partner violence against women remain strong. More important, the overall ability of the model to predict partner violence increased significantly when the index of structural disadvantage was added to the model, but further analyses reveals that structural disadvantage alone has relatively little impact on partner violence. Instead, it is the combination of disadvantage and low levels of social support that creates a situation that is ripe for violence. These findings suggest that studies that fail to include neighborhood characteristics in explanations of partner violence ignore important aspects of this very complex problem. Moreover, studies that ignore individual- and couple-level characteristics and focus solely on aggregate effects equally suffer. Finally, the theory of social disorganization may require refinement that considers the cultural variations that may exist between different types of neighborhoods. We have assessed only the influence on a single set of neighborhood characteristics—structural disadvantage—that were indicators of social disorganization. Many others can be gleaned from the theory.

Evidence also suggests that there are many different aspects and dimensions of social support that merit further investigation and refinement. People socialize with different people, in different settings, and at different levels of frequency. Whom people socialize with and how often have different effects on the likelihood of partner violence. As indicated in the literature, it is difficult to assess the time ordering and the direction of the association between social support and partner violence. Cross-sectional analysis is limiting in its ability to address these issues.

Our research findings may help to inform public policy aimed at helping women in impoverished neighborhoods to escape the violence. Programs aimed at lending women social support to escape or prevent violence from occurring may be administered more effectively in structurally disadvantaged neighborhoods to reach the greatest number of women who are at risk of experiencing partner violence.

Our investigation crosses methodological and theoretical boundaries to grasp a more complete understanding of the correlates of violence against women among partners. Future studies of partner violence must investigate the composition of individual- and partner-level characteristics within different contexts. Couples do not live in a vacuum separated from the world outside their windows. The conditions present just beyond the doorstep may

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

affect what goes on inside the home and vice versa. Accepting this apparently obvious assertion may contribute to our understanding of partner violence and more effectively lead to its prevention.

NOTES

1. Due to restrictions in the data, Miles-Doan (1998) was unable to consider the effects of individual-level influences in conjunction with area characteristics on male-to-female homicide.

2. Bursik and Webb (1982) discussed differences between static and dynamic approaches to delinquency and crime. A cross-sectional analysis can only produce static explanations of crime. It is, however, appropriate to employ cross-sectional methods in social disorganization research where the dependent and independent measures are separated in time by a relatively short span. In this study, census and National Survey of Families and Households (NSFH) data were gathered between only 2 and 4 years apart.

3. Century month of union for new partners appearing in Wave 2 of the NSFH were not available. Instead, month of union was created for Wave 2 respondents who were not partners in Wave 1. Each new couple was assigned a score that estimates the century month of union as the last date of the last interview in the 1st Wave (June, 1988). This is the earliest possible date of union.

4. Household income is a combined measure of income measured in real dollars for everyone living within each household. As expected, household income and couple-level education were strongly correlated with each other at the bivariate level (.458, $p = .000$).

5. Race for partners in Wave 2 of the NSFH was not available; however, race for the main respondent from Wave 1 was available, as was race for partners who remained together since Wave 1. Because interracial marriages are relatively rare in the general population, new partners who were not present for the Wave 1 were assigned the same race as the main respondent for each couple. Race for women was used as the couple race variable.

6. Census tracts can house very unusual populations. For instance, a single household appeared in one of the census tracts consisting of a single woman and her six children. Another consisted of only a prison. Because dividing by the total number of households created most of the indicators, these particular census tracts were often automatically eliminated from the computation of some of the variables.

7. Racial heterogeneity is measured using Blau's (1977) index of heterogeneity. The index is defined as 1 – (*pi*, where *pi* is the fraction of the population in each racial category in a given tract). This measure takes into account the relative size and number of racial groups in an area, with a score of 1 representing maximum heterogeneity.

8. Results available on request.

9. Results available on request.

10. Logistic regression produces logit estimates that represent the change in the log of the odds of the dependent variable associated with a unit change in each of the independent variables controlling for the effects of all other variables included in the model. The odds of an event occurring—partner violence in this case—are defined as the ratio of the probability that it will occur to the probability that it will not.

11. Entering variables into a second block in the SPSS logistic regression procedure produces a change score for the chi-square statistics.

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

12. In logistic regression, the model chi-square tests the null hypothesis that the coefficients for all of the terms in the model, except the constant, are 0. This was comparable to the overall *F* test in regression analysis.

REFERENCES

Anderson, E. (1999). *Code of the street: Decency, violence, and the moral life of the inner city.* New York: Norton.

Benson, M. L., Fox, G. L., Van Wyk, J., & DeMaris, A. (2000). Violence in families: The intersection of race, poverty and community context. In G. L. Fox & M. L. Benson (Eds.), *Families and crime* (pp. 91-109). New York: JAI.

Blau, P. M. (1977). *Inequality and heterogeneity.* New York: Free Press.

Bowker, L. H. (1983). *Beating wife-beating*. Lexington, MA: D.C. Heath.

Bowker, L. H. (1985). The effects of national development on the position of married women in the third world: The case of wife beating. *International Journal of Comparative & Applied Criminal Justice*, *9*, 1-13.

Bursik, R. J., Jr. (1988). Social disorganization and theories of crime and delinquency: Problems and prospects. *Criminology*, *26*, 519-551.

Bursik, R. J., Jr., & Webb, J. (1982). Community change and patterns of delinquency. *American Journal of Sociology*, *88*, 24-42.

Byrne, J. M., & Sampson, R. J. (1986). *The social ecology of crime*. New York: Springer-Verlag.

Cassel, J. (1974). An epidemiological perspective of psychosocial factors in disease etiology. *American Journal of Public Health*, *64*, 1040-1043.

Cobb, S. (1976). Social support as a moderator of life stress. *Psychosomatic Medicine*, *38*, 300-314.

Cohen, S., & Wills, T. A. (1985). Stress, social support, and the buffering hypothesis. *Psychological Bulletin*, *98*, 310-357.

Conger, R. D., Elder, G. H., Lorenz, K. J., Conger, R. L., Simons, R. L., Whitbeck, L. B., et al. (1990). Linking economic hardship to marital quality and instability. *Journal of Marriage & the Family*, *52*(3), 243-656.

Cullen, F. T. (1994). Social support as an organizing concept for criminology: Presidential address to the Academy of Criminal Justice Sciences. *Justice Quarterly*, *11*(4), 527-559.

DeKeseredy, W. S., Alvi, S., Schwartz, M. D., & Perry, B. (1999). Violence against and the harassment of women in Canadian public housing: An exploratory study. *Canadian Review of Sociology & Anthropology*, *36*(4), 499-516.

DeMaris, A. (1998, April 3). *The aftermath of marital violence: Which couples stay and which leave?* Paper presented at the annual conference of the Southern Sociological Society, Atlanta, GA.

Dibble, U., & Straus, M. A. (1980). Some social structure determinants of inconsistency between attitudes and behavior: The case of family violence. *Journal of Marriage & the Family*, *42*(1), 71-80.

Feld, S. L., & Straus, M. A. (1990). Escalation and desistance from wife assault in marriage. In M. A. Straus & R. J. Gelles (Eds.), *Physical violence in American families: Risk factors and adaptations to violence in 8,145 families* (pp. 489-505). New Brunswick, NJ: Transaction Books.

Feldman-Summers, S., & Ashworth, C. D. (1981). Factors related to intentions to report a rape. *Journal of Social Issues*, *37*, 53-70.

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

Feldman-Summers, S., & Norris, J. (1984). Differences between rape victims who report and those who do not report to a public agency. *Journal of Applied Social Psychology*, *14*, 562-573.

Gelles, R. J. (1978). Violence toward children in the United States. *American Journal of Orthopsychiatry*, *48*(4), 580-592.

Gelles, R. J. (1982). Domestic criminal violence. In M. E. Wolfgang & N. A. Weiner (Eds.), *Criminal violence* (pp. 201-235). Beverly Hills, CA: Sage.

Gelles, R. J., & Straus, M. A. (1978). Violence in the American family. *Journal of Social Issues*, *35*(2), 15-39.

Gelles, R. J., & Straus, M. A. (1988). *Partner violence: The causes and consequences of abuse in the American family*. New York: Simon & Schuster.

Goetting, A. (1989). Patterns of marital homicide: A comparison of husbands and wives. *Journal of Comparative Family Studies*, *20*, 341-354.

Gottlieb, B. H. (1981). *Social networks and social support*. Beverly Hills, CA: Sage.

Greenberg, S., Rohe, W. M., & Williams, J. R. (1982). *Safe and secure neighborhoods: Physical characteristics and informal territorial control in high and low crime neighborhoods*. Washington, DC: National Institute of Justice.

Hampton, R. L., & Gelles, R. J. (1994). Violence toward Black women in a nationally representative sample of Black families. *Journal of Comparative Family Studies*, *25*(1), 105-119.

Hampton, R. L., Gelles, R. J., & Harrop, J. (1989). Is violence in Black families increasing? A comparison of 1975 and 1985 national survey rates. *Journal of Marriage & the Family*, *51*, 969-980.

Hornung, C. A., McCullough, B. C., & Sugimoto, T. (1981). Status relationships in marriage: Risk factors in spousal abuse. *Journal of Marriage & the Family*, *43*, 675-692.

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

House, J. S., Umberson, D., & Landis, K. R. (1988). Structures and processes of social support. *Annual Review of Sociology*, *14*, 293-318.

Jasinski, J. L., & Williams, L. M. (1998). *Partner violence: A comprehensive review of 20 years of research*. Thousand Oaks, CA: Sage.

Kaufman Kantor, G., Jasinski, J., & Aldarondo, E. (1994). Sociocultural status and incidence of marital violence in Hispanic families. *Violence & Victims*, *9*(3), 207-222.

Kaufman Kantor, G., & Straus, M. (1987). The "drunken bum" theory of wife beating. *Social Problems*, *34*(3), 213-230.

Kornhauser, R. D. (1978). *Social sources of delinquency: An appraisal of analytic models*. Chicago: University of Chicago Press.

MacMillan, R., & Gartner, R. (1999, November). When she brings home the bacon: Labor-force participation and the risk of spousal violence against women. *Journal of Marriage & the Family*, *61*, 947-958.

McLaughlin, I. G., Leonard, K. E., & Senchak, M. (1992). Prevalence and distribution of premarital aggression among couples applying for a marriage license. *Journal of Family Violence*, *7*(4), 309-319.

Miethe, T. D., & McDowall, D. (1993). Contextual effects in models of criminal victimization. *Social Forces*, *71*, 741-759.

Miles-Doan, R. (1998). Violence between spouses and partners: Does neighborhood context matter? *Social Forces*, *77*(2), 623-645.

Sampson, R. J. (1986). Neighborhood family structure and the risk of personal victimization. In J. M. Byrne & R. J. Sampson (Eds.), *The social ecology of crime* (pp. 25-46). New York: Springer-Verlag.

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014

Sampson, R. J., & Bartusch, D. J. (1999). Legal cynicism and subcultural tolerance of deviance: The neighborhood context of racial differences. *Law & Society Review*, *32*(4), 777-804.
Sampson, R. J., & Groves, W. B. (1989). Community structure and crime: Testing social disorganization theory. *American Journal of Sociology*, *94*, 774-802.
Sampson, R. J., Morenoff, J. D., & Earls, F. (1999). Beyond social capital: Spatial dynamics of collective efficacy for children. *American Sociological Review*, *64*(5), 633-660.
Sampson, R. J., Raudenbush, S. W., & Earls, F. (1997). Neighborhoods and violent crime: A multilevel study of collective efficacy. *Science*, *277*, 918-924.
Sherman, L. W., & Berk, R. A. (1984). The specific deterrent effects of arrest for domestic assault. *American Sociological Review*, *49*, 261-272.
Simcha-Fagan, O., & Schwartz, J. E. (1986). Neighborhood and delinquency: An assessment of contextual effects. *Criminology*, *24*(4), 667-702.
Smith, M. D. (1990). Patriarchal ideology and wife beating: A test of a feminist hypothesis. *Violence & Victims*, *5*(4), 257-273.
Stark, R. (1987). Deviant places: A theory of the ecology of crime. *Criminology*, *25*, 893-909.
Steinmetz, S. K., & Straus, M. A. (Eds.). (1974). *Violence in the family.* New York: Wiley.
Stets, J. E. (1991, August). Cohabiting and marital aggression: The role of social isolation. *Journal of Marriage & the Family*, *53*, 669-680.
Stets, J. E., & Straus, M. A. (1989). The marriage license as a hitting license: A comparison of assaults in dating, cohabiting, and married couples. *Journal of Family Violence*, *4*(2), 161-180.
Straus, M. A., & Gelles, R. J. (1986, August). Societal change and change in family violence from 1975 to 1985 as revealed by two national surveys. *Journal of Marriage & the Family*, *48*, 465-479.
Straus, M. A., Gelles, R. J., & Steinmetz, S. K. (1980a). *Behind closed doors: Violence in the American family.* Garden City, NY: Anchor.
Straus, M. A., Gelles, R. J., & Steinmetz, S. K. (1980b). Physical violence in a nationally representative sample of American families. In Jan Trost (Ed.), *The family in change* (pp. 149-165). Västerås, Sweden: International Library.
Straus, M. A., & Smith, C. (1990). Violence in Hispanic families in the United States: Incidence rates and structural interpretations. In M. A. Straus & R. J. Gelles (Eds.), *Physical violence in American families: Risk factors and adaptations to violence in 8,145 families* (pp. 341-368). New Brunswick, NJ: Transaction Books.
Taylor, R. B., & Covington, J. (1988). Neighborhood changes in ecology and violence. *Criminology*, *26*, 553-589.
U.S. Department of Justice. (1994, July). *Criminal victimization in the United States: 1973-1992 trends: A National Crime Victimization Survey Report July 1994* (NCJ-147006). Washington DC: Bureau of Justice Statistics.
Vaux, A. (1988). *Social support: Theory, research, and intervention*. New York: Praeger.
Walker, L. E. A. (1994). *Abused women and survivor therapy.* Washington, DC: American Psychological Association.
Wilson, J. Q., & Herrnstein, R. J. (1985). *Crime and human nature*. New York: Simon & Schuster.
Wolfner, G., & Gelles, R. J. (1993). A profile of violence toward children. *Child Abuse & Neglect*, *17*, 197-212.
Wright, B. R., Caspi, A., Moffitt, T. E., Miech, R. A., & Silva, P. A. (1999). Reconsidering the relationship between SES and delinquency: Causation but not correlation. *Criminology*, *37*(1), 175-194.

Downloaded from cad.sagepub.com at PORTLAND STATE UNIV on April 29, 2014