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Economic Insecurity and Intimate Partner and Sexual Violence Victimization

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Abstract

Introduction: Previous research has consistently found that low SES is associated with higher levels of both intimate partner violence (IPV) and sexual violence (SV) victimization. Though associated with poverty, two indicators of economic insecurity, food and housing insecurity, have been identified as conceptually distinct social determinants of health. This study examined the relation-ship between food and housing insecurity experienced in the preceding 12 months and IPV and SV victimization experienced in the preceding 12 months, after controlling for SES and other demographic variables.

Methods: Data were from the 2010 National Intimate Partner and Sexual Violence Survey, a nationally representative telephone survey of U.S. adults. In 2016, multivariate logistic regression modeling was used to examine the association between food and housing insecurity and multiple forms of IPV and SV victimization.

Results: Robust associations were found between food and housing insecurity experienced in the preceding 12 months and IPV and SV experienced in the preceding 12 months, for women and men, even after controlling for age, family income, race/ethnicity, education, and marital status.

Conclusions: Food and housing insecurity may be important considerations for the prevention of SV and IPV or the reductions of their consequences, although future research is needed to disentangle the direction of the association. Strategies aimed at buffering economic insecurity may reduce vulnerability to IPV and SV victimization.

INTRODUCTION

Intimate partner violence (IPV) and sexual violence (SV) are critical public health concerns affecting millions of people each year. Research has consistently found that low SES, including poverty, is associated with higher levels of both IPV and SV victimization.[1,2] Though associated with poverty, two indicators of economic insecurity, food and housing

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insecurity, have been identified as conceptually distinct social determinants of health.[3,4] Anderson[5] defined food insecurity as existing "whenever the availability of nutritionally adequate and safe foods or the ability to acquire acceptable foods in socially acceptable ways is limited or uncertain." Food insecurity has been operationalized in the literature as either concern about not having enough food, food not lasting, needing to cut or skip meals, going hungry, or some combination of these.[6–9] The measurement and operationalization of concerns related to housing varies in the literature. Terms such as housing instability and housing problems[10] have been used to represent a range of tangible experiences, including frequent moves, being denied affordable housing, inability to pay rent or mortgage, needing to move in with others, eviction/foreclosure, marginal housing, and homelessness.[9,11–13] Housing insecurity, on the other hand, may be thought of as a slightly different construct that refers to distress related to one's perceived inability to pay for housing (i.e., rent or mortgage).[14]

Although food and housing insecurity are linked to numerous negative health outcomes, few studies have examined food or housing insecurity specifically and their relationship to victimization.[1,3,11,15–18] One study found that women who experienced IPV in the last year had almost four times the odds of reporting housing instability than women who did not experience IPV after adjusting for SES variables.[19] In another study, women who were unable to pay the rent or mortgage had greater odds of experiencing emotional abuse, coercion, and violence in general.[20] Not having enough money to meet daily needs (such as food) has been associated with IPV victimization in college samples around the world.[21] Food insecurity specifically has been associated with women's IPV victimization in a population-based sample in California, even after adjusting for poverty.[22] A longitudinal study in Britain found that, after control-ling for income, low-SES families that had experienced food insecurity were disproportionately affected by IPV.[23] After controlling for income among low-SES families, 40.8% of ever food-insecure families had moth-ers who experienced IPV compared with 22.4% of always food-secure families.[23] Researchers have suggested explanations for the relationship between economic insecurity and SV/IPV. First, a lack of economic security can reduce the likelihood of victims leaving violent relationships.[24] Second, economic insecurity can create stress and conflict in a relationship, which can increase the likelihood of IPV.[25,26]

Though previous studies suggest a link between both food and housing insecurity and risk for IPV victimization, these studies are restricted to women, a specific state, or a particular setting (i.e., college). The larger scientific literature has shown a relationship between poverty and homelessness and SV victimization, suggesting that food- and housing-insecure individuals may be vulnerable to SV as well, but no study has specifically examined this association. In addition, studies have not examined whether the association holds for men or for specific forms of IPV victimization (e.g., physical, psychological). The current study attempts to fill these gaps in the literature. It is the first nationally representative study in the U.S. to examine the associations between food and housing insecurity and both IPV and SV victimization. Second, it is the first study to examine these relationships among men. Third, findings are disaggregated by type of IPV and SV, allowing for an examination of the relationship between economic insecurity and particular forms of IPV and SV. Finally, the study examines SV victimization by any perpetrator, by an intimate partner, and by someone

other than an intimate to test whether the association between food and housing insecurity and SV victimization is driven solely by intimate partner–perpetrated SV. Based on previous literature, the authors expected to find higher levels of IPV and SV victimization among women and men who experienced recent food and housing insecurity.

METHODS

The present study used data from the 2010 National Intimate Partner and Sexual Violence Survey (NISVS), an ongoing, nation-ally representative random-digit-dial telephone survey of the non-institutionalized English- and Spanish-speaking U.S. population aged ≥18 years. NISVS uses a dual-frame sampling design that includes both landline and cell phones. NISVS includes behavior-ally specific questions that assess a broad range of victimization experiences related to SV, stalking, and IPV.[27] A total of 9,086 women and 7,421 men completed the survey in 2010. Approximately 45.2% of interviews were conducted by landline telephone, and 54.8% of interviews were conducted using a respondent's cell phone. The overall weighted response rate of the 2010 survey was 33.6%.[28] The weighted cooperation rate was 81.3%, indicating that among those who were contacted and determined to be eligible, a high proportion ultimately agreed to participate.

After a single adult respondent in a household was randomly selected to participate, the interviewer administered an informed consent procedure that provided information on the voluntary and confidential nature of the survey as well as the potential benefits and risks of participation. The survey protocol received approval from the IRB of RTI International.

MEASURES

The analysis focused on questions assessing IPV and SV experienced within the 12 months preceding the interview. Respondents were told that intimate partners included spouses, *boyfriends, girlfriends, people you have dated, people you were seeing, or people you hooked up with*. A complete list of the violence victimization questions measured in NISVS has been published previously.[27]

Five distinct forms of IPV victimization were examined:

1. physical violence (e.g., kicked, slammed against something);
2. stalking (experiencing multiple stalking tactics or a single stalking tactic multiple times by the same perpetrator and the respondent felt very fearful or believed that she or he or someone close to her or him would be harmed or killed as a result of a perpetrator's stalking behaviors);
3. psychological aggression (e.g., called names, threats to harm victim or loved ones);
4. control of reproductive or sexual health (refusal to use a condom; for women, when a partner tried to get her pregnant when she did not want to become pregnant; for men, when a partner tried to get pregnant when he did not want her to become pregnant); and

5. contact SV.

Contact SV comprised four different forms of SV: (1) rape (completed or attempted forced penetration or alcohol- or drug-facilitated penetration); (2) being made to penetrate someone; (3) sexual coercion (unwanted sexual penetration that occurred after a person was pressured in a nonphysical way); and (4) unwanted sexual contact (including experiences involving unwanted touch but not sexual penetration, such as being kissed in a sexual way, or having sexual body parts fondled or grabbed).

The broad measures of SV victimization examined in this study were (1) contact SV (comprising the four aforementioned subtypes of SV) and (2) noncontact unwanted sexual experiences (e.g., someone exposing their sexual body parts, flashing, or masturbating in front of the victim, or someone harassing the victim in a way that made them feel unsafe). Depending upon the particular analysis, these forms of SV were assessed in relation to whether these forms of SV were perpetrated by (versus not perpetrated by) (1) any perpetrator; (2) an intimate partner; or (3) a non-intimate partner.

Food and housing insecurity in the 12 months preceding the survey were measured using the two questions that comprised the optional Social Context module from the Behavioral Risk Factor Surveillance System.[14,29] Recent food insecurity was measured by the question *In the past 12 months, how often would you say you were worried or stressed about having enough money to buy nutritious meals?* Recent housing insecurity was measured by the question *In the past 12 months, how often would you say you were worried or stressed about having enough money to pay your rent or mortgage?* Response options for both questions included always, usually, sometimes, rarely, and never. In the current study, some analyses examined food and housing insecurity in a dichotomous manner: *always, usually*, and *sometimes* were coded as “yes” and *rarely* and *never* were coded as “no.” In other analyses, a combined measure of “economic insecurity” was examined in which the two individual items were summed. In the combined measure, *never* was coded as 0, *rarely* was coded as 1, *sometimes* was coded as 2, *usually* was coded as 3, and *always* was coded as 4. The combined measure was broken into three levels representing high (6–8); medium (3–5); and low (0–2) economic insecurity.

Statistical Analysis

In 2016, weighted analyses were conducted in which complex sample design features (i.e., stratified sampling, weighting for unequal sample selection probabilities, and nonresponse adjustments) were taken into account to produce nationally representative estimates. Prevalence estimates and corresponding 95% CIs were calculated, stratified by gender and the presence/absence of the five types of IPV and two forms of SV. Chi-square tests compared the prevalence of each form of IPV and SV victimization by the presence/absence of food and housing insecurity. Logistic regression models examined the association between the dependent variable (each form of IPV and SV) and the independent variable (economic insecurity), after controlling for age, family income, race/ethnicity, education, and marital status. Finally, given that a significant percentage of SV perpetrators are intimate partners, and to examine whether any potential associations applied outside of the intimate partner context, the authors sought to identify whether the relationship between economic

insecurity held when examining only SV perpetrated by someone who was not an intimate partner of the victim. Consequently, logistic regression models examined economic insecurity in relation to a binary variable that was created that classified a respondent as to whether or not she or he had experienced SV by someone other than an intimate partner in the preceding 12 months. SAS version 9.3 (SAS Institute, Cary, NC) and SAS-callable SUDAAN version 11.0 (Research Triangle Institute, Research Triangle Park, NC) were used for statistical analysis.

RESULTS

The prevalence of housing insecurity in the 12 months preceding the survey was 46.3% for women (22.5% sometimes, 10.4% often, 13.4% always) and 40.5% for men (22.1% sometimes, 7.2% often, 11.2% always). The prevalence of food insecurity in the 12 months preceding the survey was 31.8% for women (18.9% sometimes, 6.3% often, 6.6% always) and 24.6% for men (15.1% some-times, 4.5% often, 5.0% always).

Women reporting recent housing insecurity were significantly more likely than women who did not report recent housing insecurity to experience all examined forms of IPV (Table 1). A similar pattern was found for women in relation to food insecurity. Men reporting recent housing insecurity were significantly more likely to experience all examined forms of IPV, except stalking, compared with men who did not report recent housing insecurity. A similar pattern was found for men in relation to food insecurity.

In logistic regression models including control variables, women reporting high and moderate levels of economic insecurity were significantly more likely to have experienced all forms of IPV in the preceding 12 months, compared with women reporting low levels of economic insecurity (Table 2). Men reporting high levels of economic insecurity were significantly more likely to experience all forms of IPV in the preceding 12 months, compared with men reporting low levels of economic insecurity. Men reporting moderate levels of economic insecurity were significantly more likely to have experienced physical violence and psychological aggression by an intimate partner in the preceding 12 months com-pared with men reporting low levels of economic insecurity.

Women reporting recent housing insecurity were significantly more likely to experience contact SV and noncontact unwanted sexual experiences, compared with women who did not report recent housing insecurity (Table 3). A similar pattern was found for women in relation to food insecurity. Similar significant associations were found for men between food and housing insecurity and both forms of SV.

In logistic regression models including control variables, women and men experiencing high and moderate levels of economic insecurity were significantly more likely to have experienced contact SV and noncontact unwanted sexual experiences in the preceding 12 months, compared with women and men, respectively, reporting low levels of economic insecurity (Table 4). When these forms of violence were limited to perpetrators who were not intimate partners, significant associations were found for both women and men between recent economic insecurity and both forms of SV in the preceding 12 months.

DISCUSSION

This study is the first nationally representative study in the U.S. to find an association between economic insecurity and both IPV and SV victimization, and to establish these relationships among men. Results from this study show significant and robust associations between economic insecurity and the experience of IPV and SV within the preceding 12 months, for both women and men, even after controlling for family income and other demographic variables. Similar associations were found for both women and men, aside from a few nonsignificant relationships for men (e.g., stalking and contact sexual violence by an intimate partner at the moderate level of income insecurity). However, the pattern of results suggests somewhat stronger relation-ships between economic insecurity and various forms of IPV for women, and between economic insecurity and noncontact unwanted sexual experiences for men.

Although the questions used in the current study likely reflect actual difficulties in paying for nutritious food and suitable housing, it is also likely that they tap into psychological aspects related to economic insecurity. As such, it is unclear in the current study whether the associations are driven by actual difficulty of paying for food and housing, the distress related to this difficulty, or both. Further research is needed to disentangle the psychological aspects of this construct from the more concrete, financial aspects.

The cross-sectional nature of the data precludes establishing the direction of the reported associations. In addition, it is unclear whether a third intervening variable might explain the identified associations. There are plausible reasons to suggest a bidirectional relation-ship. On one hand, a lack of economic security can trap victims in violent relationships.[24] Also, feeling economically insecure can create stress and conflict in a relation-ship and make IPV more likely.[25,26] On the other hand, some types of IPV (e.g., economic control) can directly lead to food insecurity.[30] Violent relationships are frequently less stable, so the end of a relationship can result in one or both partners experiencing food or housing insecurity. Previous research suggests that IPV victims who leave their abusers may face financial hard-ship that could include both food and housing insecurity, and in some cases, homelessness.[31] Further research is needed to better understand the direction of these relationships.

The circumstances that explain the association between SV victimization and food and housing inse-curity are likely similar to those of IPV victimization, given that more than half of female victims of rape, three quarters of female victims of sexual coercion, and almost 70% of male victims of sexual coercion report that at least one perpetrator was a current or former intimate partner.[27] However, the current study also established that those who had reported food and housing insecurity were more likely to experience SV by someone other than an intimate partner. One possible explanation is that economic insecurity puts individuals at higher risk for SV victimization because they are more likely to engage in “economic survival strategies,” such as living in multiple temporary locations with people that are less well known,[32] increasing the risk of exposure to perpetrators looking for vulnerable targets.

Limitations

In addition to the cross-sectional nature of this study, these findings are subject to several limitations. First, the overall response rate for the 2010 NISVS survey was relatively low (34%), although the cooperation rate was high (81%), and multiple efforts were made to reduce the likelihood of nonresponse and undercoverage bias (e.g., inclusion of a cellular telephone sample and follow-up of nonrespondents). Second, NISVS assessed the relationship to the perpetrator at the time of the first and last victimization. All of the estimates in this report reflect the relationship at the time of the first victimization. Consequently, there may have been a small number of cases in which violence was first experienced as a non-intimate partner (e.g., acquaintance) and was subsequently experienced after the perpetrator became an intimate partner; these cases would not be classified as IPV. Finally, self-reported data are subject to recall bias because respondents might believe that events occurred closer in time than they did in actuality (i.e., telescoping), which might particularly affect 12-month prevalence estimates.

CONCLUSIONS

Both IPV and SV are preventable.[33] Prevention approaches that improve economic security and stability for families may reduce the risk for IPV and SV victimization, and a reduction in victimization may increase economic security and family stability. Economic empowerment strategies might be particularly relevant to prevent IPV and SV among populations experiencing economic insecurity. For example, income-generating options, such as microcredits, may help mitigate circumstances that contribute to victimization. Previous studies in other countries[34,35] found that a combination of microfinance and training on gender norms and health topics led to reductions in past-year physical and sexual IPV. Moreover, life events may increase some women's vulnerability to financial, employment, and housing instability, thereby increasing their risk for SV victim-ization.[1,32] In these cases, income replacement through policies such as paid family and medical leave may be protective to women during life events such as the birth of children or short- or long-term illnesses,[36,37] given the knowledge that food and housing insecurity have been linked to poor physical and mental health in previous research.[15] Cash payments to households or individuals and community mobilization (i.e., training community members to lead, think critically about men's power over women, and increase community cohesion) strategies have been effective in preventing both IPV and SV in other countries.[38,39] Research is needed to know whether microcredits, cash payments, or community mobilization strategies are effective in the U.S. context. Most of the literature in this area is focused on women and their children; research is also needed to identify ways in which to increase the economic security of men who may be victims of, or vulnerable to, IPV and SV.

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Table 1.

Twelve-Month Prevalence of Intimate Partner Violence Victimization by Recent Food and Housing Insecurity

	Weighted 12-month prevalence, % (95% CI)							
	Women				Men			
Type of violence	**Recent housing insecurity[a]**	**No recent Housing insecurity[a]**	**Recent food insecurity[a]**	**No recent food insecurity**	**Recent housing insecurity[a]**	**No recent housing insecurity[a]**	**Recent food insecurity[a]**	**No recent food insecurity[a]**
Physical violence	**7.3 (6.0, 9.0)**	3.0 (2.3, 3.9)	**7.6 (5.8, 9.9)**	3.8 (3.1, 4.6)	**7.3 (6.0, 9.0)**	3.0 (2.3, 3.9)	**7.6 (5.8, 9.9)**	3.8 (3.1, 4.6)
Contact sexual violence[b]	**3.4 (2.6, 4.4)**	1.2 (0.8, 1.8)	**3.8 (2.9, 5.1)**	1.5 (1.1, 2.0)	**3.4 (2.4, 4.6)**	1.1 (0.8, 1.6)	**4.0 (2.7, 5.9)**	1.4 (1.0, 1.9)
Stalking	**4.8 (3.8, 6.1)**	1.1 (0.8, 1.6)	**6.0 (4.6, 7.8)**	1.3 (1.0, 1.8)	_[d]	_[d]	_[d]	_[d]
Psychological aggression	**20.2 (18.2, 22.2)**	8.6 (7.5, 9.8)	**22.0 (19.6, 24.6)**	10.2 (9.1, 11.3)	**25.9 (23.5, 28.5)**	12.8 (11.5, 14.2)	**27.4 (24.2, 30.9)**	15.1 (13.8, 16.6)
Control of reproductive or sexual health[c]	**2.4 (1.7, 3.5)**	0.9 (0.5, 1.4)	**3.0 (2.0, 4.5)**	0.9 (0.6, 1.3)	**2.8 (2.0, 3.9)**	0.8 (0.5, 1.3)	**3.6 (2.5, 5.3)**	0.9 (0.6, 1.4)

Note: Boldface indicates statistical significance ($p<0.05$).

[a]Respondents were designated as having experienced recent food or housing insecurity if they indicated that they experienced food or housing insecurity sometimes, usually, or always (versus never or rarely) in the past 12 months.

[b]Contact sexual violence by an intimate partner includes rape, being made to penetrate a perpetrator, sexual coercion, or unwanted sexual contact perpetrated by an intimate partner.

[c]Control of reproductive or sexual health includes the refusal to use a condom and attempts to get a partner pregnant against a partner's wishes.

[d]Estimate is not reported; relative SE >30% or cell size ≤20.

Table 2.

Associations Between Intimate Partner Violence Victimization and Recent Economic Insecurity[a]

	Women			Men		
Type of violence	**High, AOR[b] (95% CI)**	**Moderate, AOR[b] (95% CI)**	**Low**	**High, AOR[b] (95% CI)**	**Moderate, AOR[b] (95% CI)**	**Low**
Physical violence	**4.5 (2.7, 7.5)**	**2.4 (1.5, 3.9)**	ref	**2.7 (1.7, 4.3)**	**1.5 (1.0, 2.3)**	ref
Contact sexual violence	**3.2 (1.6, 6.3)**	**1.9 (1.1, 3.4)**	ref	**2.6 (1.3, 5.4)**	1.8 (1.0, 3.3)	ref
Stalking	**6.8 (3.8, 12.1)**	**2.7 (1.6, 4.6)**	ref	**6.0 (1.9, 19.3)**	2.6 (0.8, 8.8)	ref
Psychological aggression	**3.6 (2.7, 4.7)**	**2.0 (1.6, 2.5)**	ref	**3.2 (2.4, 4.4)**	**1.9 (1.5, 2.4)**	ref
Control of reproductive or sexual health	**5.9 (2.3, 15.1)**	**2.5 (1.1, 5.6)**	ref	**2.7 (1.1, 6.9)**	2.1 (1.0, 4.6)	ref

Note: Boldface indicates statistical significance ($p<0.05$).

[a] Food insecurity and housing insecurity questions were individually coded as follows: never=0, rarely=1, sometimes=2, usually=3, and always=4. The two questions were summed and split into three levels representing high (6–8); medium (3–5); and low (0–2) food and housing insecurity.

[b] Adjusted for age, income, race/ethnicity, marital status, and education.

Table 3.

Twelve-Month Prevalence of Sexual Violence Victimization by Recent Food and Housing Insecurity

	Weighted 12-month prevalence, % (95% CI)							
	Women				Men			
Type of violence	Recent housing insecurity[a]	No recent housing insecurity[a]	Recent food insecurity[a]	No recent food insecurity[a]	Recent housing insecurity[a]	No recent housing insecurity[a]	Recent food insecurity[a]	No recent food insecurity[a]
Contact sexual violence[b]	**6.2 (5.1, 7.5)**	2.3 (1.7, 3.0)	**6.6 (5.3, 8.1)**	2.9 (2.3, 3.7)	**6.0 (4.8, 7.6)**	2.4 (1.8, 3.1)	**7.2 (5.5, 9.4)**	2.7 (2.1, 3.4)
Noncontact unwanted sexual experiences[c]	**4.2 (3.3, 5.4)**	1.9 (1.4, 2.5)	**5.3 (4.1, 6.8)**	1.9 (1.4, 2.5)	**4.7 (3.6, 6.1)**	1.3 (0.9, 1.8)	**5.5 (4.0, 7.6)**	1.8 (1.3, 2.3)

Note: Boldface indicates statistical significance ($p<0.05$).

[a]Respondents were designated as having experienced recent food or housing insecurity if they indicated that they experienced food or housing insecurity sometimes, usually, or always (versus never or rarely) in the past 12 months.

[b]Contact sexual violence includes rape, being made to penetrate a perpetrator, sexual coercion, or unwanted sexual contact.

[c]Noncontact unwanted sexual experiences include, for example, someone exposing his or her sexual body parts, flashing, or masturbating in front of the victim, or someone harassing the victim in a public place in a way that made the victim feel unsafe.

Table 4.

Associations Between Sexual Violence Victimization and Recent Economic Insecurity[a]

Type of perpetrator/sexual violence	Women			Men		
	High, AOR[b] (95% CI)	Moderate, AOR[b] (95% CI)	Low	High, AOR[b] (95% CI)	Moderate, AOR[b] (95% CI)	Low
Any perpetrator						
Contact sexual violence[c]	**3.5 (2.1, 5.7)**	**2.2 (1.4, 3.3)**	ref	**3.3 (2.0, 5.7)**	**2.0 (1.3, 3.0)**	ref
Noncontact unwanted sexual experiences[d]	**4.5 (2.7, 7.5)**	**2.1 (1.4, 3.3)**	ref	**6.4 (3.3, 12.6)**	**3.9 (2.2, 6.8)**	ref
Excluding sexual violence by an intimate partner						
Contact sexual violence[c]	**3.4 (1.7, 6.9)**	**2.3 (1.3, 4.1)**	ref	**4.2 (2.1, 8.7)**	**2.1 (1.1, 3.7)**	ref
Noncontact unwanted sexual experiences[d]	**4.1 (2.2, 7.8)**	**2.4 (1.5, 3.8)**	ref	**6.7 (3.2, 14.1)**	**3.6 (1.9, 6.9)**	ref

Note: Boldface indicates statistical significance ($p<0.05$).

[a] Food insecurity and housing insecurity questions were individually coded as follows: never=0, rarely=1, sometimes=2, usually=3, and always=4. The two questions were summed and split into three levels representing high (6–8); medium (3–5); and low (0–2) food and housing insecurity.

[b] Adjusted for age, income, race/ethnicity, marital status, and education.

[c] Contact sexual violence includes rape, being made to penetrate a perpetrator, sexual coercion, or unwanted sexual contact.

[d] Noncontact unwanted sexual experiences include, for example, someone exposing his or her sexual body parts, flashing, or masturbating in front of the victim, or someone harassing the victim in a public place in a way that made the victim feel unsafe.