

US women's choices of strategies to protect themselves from violence

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Objectives: To examine the extent to which US women's self-protection strategies are associated with either their personal or vicarious victimization experiences.

Design: A cross-sectional random digit dial telephone survey.

Setting: Continental United States.

Subjects: Non-institutionalized, English-speaking women, age 18 and older.

Outcome measures: Women's self-protection strategies.

Results: 1800 US women were interviewed (response rate 73%). They were found to use a wide variety of strategies to protect themselves. Their reported self-protection strategies did not vary relative to their assessment of the safety of their neighborhoods, but 47% avoided doing things they needed to do and 71% avoided doing things they wanted to do because of their fear of victimization. Victimization experiences, either personal or vicarious, were associated with increased weapon ownership and carrying. Compared with those with no victimization experiences, those with both personal and vicarious experience were more likely to have guns (OR=1.58, 95% CI=1.08 to 2.29), carry weapons (OR=2.67, 95% CI=1.66 to 4.28), carry devices (OR=1.57, 95% CI=1.09 to 2.26), and use home strategies (OR=1.92, 95% CI=1.33 to 2.78), suggesting a cumulative impact of multiple types of exposure to violence.

Conclusions: Ultimately, this research may help to guide women in making decisions about their choices of self-protection strategies and may help to inform policies about what approaches US women will support. Examining women's patterns of strategy selection in other cultural contexts could be valuable for identifying and promoting interventions acceptable to women.

Although personal safety is a concern for everyone, multiple studies have shown that women fear crime more than men, which is due in large part to women's fear of sexual assault.^{1–5} Women's concern appears to be disproportionate to their relatively low rates of criminal victimization compared with men's, a relationship that has been labeled "the paradox of female fear."^{2 6–13} However, violence against women, particularly sexual and domestic violence, is both widespread and under-reported. Women may deal with concern about personal safety by practicing avoidance or constraining their behavior, learning self-defense techniques, keeping weapons in their homes, and/or carrying devices and weapons such as pepper spray, knives, and firearms.

The National Violence Against Women Survey in the US found that 25% of women are physically or sexually assaulted by intimate partners in their lifetimes, and 1.8% of adult women are victimized by partners annually. Further, 18% of women who participated in this survey reported rape or sexual assault by any offender, and 0.3% had been raped or sexually assaulted within the preceding 12 months. On the basis of these findings, Tjaden and Thoennes⁵ estimated annual rates per 1000 women of 8.7 for rape/sexual assault, 58.9 for physical assault, and 44.2 for physical intimate partner violence.

Vicarious, or indirect, violence experienced by one's family members, friends, and acquaintances is an additional, potentially important, component of women's experiences of violence, judgments of risk, fear, and choice of crime prevention strategies.^{3 9 14} Although there is some research on how advocates and therapists respond to exposure to vicarious victimization through their work,^{15 16} we could find no research that examines the potential differences in self-protective strategies according to whether a woman had experienced personal versus vicarious victimization. Although theory would

suggest that greater salience is attached to experiences that are more "available" to the respondent,¹⁷ a review by Weinstein¹⁸ suggests that the literature on responses to prior experiences of victimization is varied and not necessarily specific to the victimization, in part a function of imprecise measurement of those experiences—for example, measurement of "changing locks after a burglary" may not differentiate between doors and windows or the actual experience of how the prior invasion occurred.

The purpose of this research was to examine the association between women's experiences of violence and their choices of self-protection strategies and to describe the range of self-protection practices reported by women in the US so as to better inform women in making decisions about their own protection and to guide policy about the safety of women.

METHODS

Study design and sample

This was a cross-sectional study of non-institutionalized, English-speaking adult women living in the 48 contiguous United States. We conducted a telephone survey using a random digit dialing method to identify households with an eligible female. If a household contained multiple eligible women, we randomly selected one for participation.

Data collection

Female interviewers specially trained to ask sensitive questions about violent victimization conducted the national survey using a computer assisted telephone interviewing (CATI) system. They made a total of six attempts per household, calling during weekday afternoons and evenings, and on weekends, before classifying a household as non-responsive. To protect women who needed to end the interview abruptly—for example, if an

Table 1 Demographic and neighborhood characteristics of study population by type(s) of violence experience (n = 1786)

Demographic/neighborhood characteristic	All women (n = 1786)	Personal only (n = 93, 5.2%)	Vicarious only (n = 473, 26.5%)	Personal and vicarious (n = 982, 55.0%)	Neither personal nor vicarious (n = 238, 13.3%)
Age (years)					
<25	149 (8.3)	4 (4.3)	40 (8.5)	92 (9.4)	13 (5.5)
25–34	347 (19.4)	10 (10.7)	75 (15.9)	235 (23.9)	27 (11.3)
35–44	449 (25.1)	23 (24.7)	109 (23.0)	276 (28.1)	41 (17.2)
45–54	314 (17.6)	13 (14.0)	84 (17.8)	188 (19.1)	29 (12.2)
55–64	235 (13.2)	17 (18.3)	69 (14.6)	105 (10.7)	44 (18.5)
65+	292 (16.4)	26 (28.0)	96 (20.3)	86 (8.8)	84 (35.3)
Education					
Some high school or less	150 (8.4)	8 (8.6)	34 (7.2)	83 (8.4)	25 (10.5)
High school graduate	545 (30.5)	33 (35.5)	174 (36.8)	247 (25.1)	91 (38.2)
Any post-high school	1091 (61.1)	52 (55.9)	265 (56.0)	652 (66.4)	122 (51.3)
Race/ethnicity					
White	1458 (81.6)	80 (86.0)	403 (85.2)	771 (78.5)	204 (85.7)
Non-white	328 (18.4)	13 (14.0)	70 (14.8)	211 (21.5)	34 (14.3)
Public assistance					
Yes	217 (12.2)	8 (8.6)	44 (9.3)	144 (14.7)	21 (8.8)
No	1569 (87.8)	85 (91.4)	429 (90.7)	838 (85.3)	217 (91.2)
Household composition					
Live alone	246 (13.8)	17 (18.5)	65 (13.7)	116 (11.8)	48 (20.2)
Live with 1+ adults, children	723 (40.6)	32 (34.8)	198 (41.9)	422 (43.1)	71 (30.0)
Live with 1+ adults, no children	724 (40.6)	41 (44.6)	200 (42.3)	368 (37.5)	115 (48.5)
Live with 0 adults, children	89 (5.0)	2 (2.2)	10 (2.1)	74 (7.5)	3 (1.3)
Neighborhood safety					
Safety score*	3.0 (1.91)	2.4 (1.62)	2.6 (1.61)	3.3 (2.02)	2.4 (1.78)

Except where indicated, values are number (%).

*Values are mean (SD).

abusive partner entered the room—interviewers told respondents that they could use a code phrase (“I don’t care to contribute today, thank you”) if they needed. Interviewers also gave toll-free numbers for the National Domestic Violence Hotline and the Rape, Abuse, and Incest National Network (RAINN) to all study participants, regardless of whether they disclosed a history of victimization. The anonymous respondents also received a toll-free number they could use to call back to reschedule interrupted interviews or to verify the study’s authenticity. After internal review board approval, we collected data between August and December 1997.

Instrument development

To inform the content of the instrument, we conducted 13 focus groups in North Carolina (n = 7), Iowa (n = 2), Seattle (n = 2), and Baltimore (n = 2). A total of 111 women participated in the focus groups, which were transcribed verbatim and analyzed for recurring themes. We then developed and pilot-tested the draft telephone interview instrument on a random sample of 143 women in North Carolina and revised the wording and format of several questions on the basis of the results of the pilot study.

Study variables

The outcome variables of interest were types of self-protection strategies identified from the focus groups. Strategies included carrying weapons (eg, firearms, knives) and personal safety devices (eg, pepper spray, noise makers), and changing behaviors (eg, avoiding going out at night) and the home environment (eg, alarm systems, having a dog). Information about self-protection strategies was collected on a five-point Likert scale (always, often, sometimes, rarely, never) during the CATI survey and were dichotomized (ever, never) for analysis. Specific outcome measures used in the analysis included whether women had a gun (yes, no), ever carried weapons other than a gun such as knives or clubs (yes, no), ever carried devices such as pepper spray or noise makers (yes, no), used home strategies such as installing a home security system or

window bars (yes, no), or ever changed activities they wanted or needed to do (yes, no).

The exposure variables were women’s personal and vicarious experiences with violence in their adult lifetime (18+ years). Personal experiences included being followed by a man, harassed, physically or sexually assaulted by a partner (current or former) or stranger, and being home during a break-in. Vicarious experiences with violence included knowing a woman personally who had been physically or sexually abused by an intimate partner, raped, or whose home was broken into while she was there. Exposure variables were categorized for analysis as ever having experienced personal violence only (without vicarious exposure) (yes, no), vicarious violence only (without personal exposure) (yes, no), personal *and* vicarious violence (yes, no), and neither personal nor vicarious violence (yes, no) in the woman’s adult life.

Potentially confounding variables included the women’s age (<25, 25–34, 35–44, 45–54, 55–64, 65+), level of completed education (some high school or less, high school graduate, any post-high school), race/ethnicity (white, ethnic minorities), whether she received public assistance such as food stamps, supplemental security income, welfare or disability (yes, no), household composition (live alone, live with at least one adult and one child, live with at least one adult only, live with children only), and how safe she perceived her neighborhood to be (measured as a mean score of perceived safety during the day and after dark, both of which were collected from the CATI survey on a 10-point scale ranging from “completely safe” to “very dangerous”).

Statistical analysis

Using SAS (version 9.1) we used bivariate statistics to describe the frequency of self-protection strategies used by women and the demographic and neighborhood characteristics of the women, by the type of violence they experienced. We examined the relationship between self-protection strategies and demographic and neighborhood characteristics using χ^2 statistics, and used logistic regression models to estimate the association

Table 2. Use of protection strategies by US women by victimization experience

Type of protective strategy	All women (n = 1786)	Personal only (n = 93)	Vicarious only (n = 473)	Personal and vicarious (n = 982)	Neither personal nor vicarious (n = 238)
Guns					
Have one in home	751 (42.1)	38 (40.9)	209 (44.2)	416 (42.4)	88 (37.0)
Have more than one in home*	464 (61.8)	20 (52.6)	136 (65.1)	262 (63.0)	46 (52.3)
Given one for protection	257 (14.4)	9 (9.7)	36 (7.6)	197 (20.1)	15 (6.3)
Acquired by self for protection	233 (13.1)	13 (14.0)	35 (7.4)	174 (17.7)	11 (4.6)
Ever carry†	119 (11.5)	4 (9.8)	27 (12.6)	83 (18.0)	5 (5.6)
Ever have while driving‡§	129 (12.9)	5 (12.2)	25 (12.4)	94 (20.9)	5 (6.0)
Weapons (other than gun)					
Ever carry a knife	137 (7.7)	1 (1.1)	21 (4.4)	109 (11.1)	6 (2.5)
Ever carry a club or bat	101 (5.7)	2 (2.2)	16 (3.4)	79 (8.0)	4 (1.7)
Ever carry other weapon	194 (10.9)	11 (11.8)	36 (7.6)	134 (13.6)	13 (5.5)
Devices					
Ever carry pepper spray	373 (20.9)	8 (8.6)	77 (16.3)	245 (24.9)	40 (16.8)
Ever carry noise maker	322 (18.0)	14 (15.1)	78 (16.5)	192 (19.6)	38 (16.0)
Home strategies					
Have a dog for protection	572 (32.0)	34 (36.6)	132 (27.9)	349 (35.5)	57 (23.9)
Ever hide weapons around the home	802 (44.9)	30 (32.3)	182 (38.5)	508 (51.7)	82 (34.4)
Have a home security system	345 (19.3)	14 (15.0)	84 (17.8)	212 (21.6)	35 (14.7)
Have window bars	88 (4.9)	3 (3.2)	14 (3.0)	62 (6.3)	9 (3.8)
Behavioral strategies					
Ever look under cars	882 (53.9)	36 (43.4)	216 (50.5)	533 (57.9)	97 (47.1)
Ever check back seats	1384 (84.5)	68 (81.9)	354 (82.7)	798 (86.6)	164 (79.6)
Ever keep car doors locked	1530 (93.4)	76 (91.6)	403 (94.2)	861 (93.5)	190 (92.2)
Ever keep doors at home locked	1718 (96.2)	91 (97.8)	447 (94.5)	953 (97.0)	227 (95.4)
Ever look directly at strangers	1419 (79.5)	70 (75.3)	368 (77.8)	822 (83.7)	159 (66.8)
Ever walk like you mean business	1624 (90.9)	81 (87.1)	420 (88.8)	924 (94.1)	199 (83.6)
Ever wear shoes for running	1683 (94.2)	86 (92.5)	44 (93.9)	932 (94.9)	221 (92.9)
Ever alert and aware of surroundings	1762 (98.7)	91 (97.8)	467 (98.7)	973 (99.1)	231 (97.1)
Ever get someone to go along after dark	1494 (83.7)	68 (73.1)	397 (83.9)	837 (85.2)	192 (80.7)
Ever change things want to do	1263 (70.7)	57 (61.3)	308 (65.1)	750 (76.4)	148 (62.2)
Ever change things need to do	831 (46.5)	37 (39.8)	201 (42.5)	498 (50.7)	95 (39.9)
Ever had martial arts or self-defense training	335 (18.8)	9 (9.7)	57 (12.0)	255 (26.0)	14 (5.9)

Values are number (%).

*Percentage based on the number of women who have a gun in the home.

†Percentage based on the number of women who have at least one gun in the home or have acquired one for themselves for protection.

‡Percentage based on the number of women who have at least one gun in the home or have acquired one for themselves for protection, and ever drive.

§Percentage based on number of women who report that they drive.

between women's experiences of violence and the strategies they used to protect themselves from violence. We applied sampling weights to the data to facilitate valid projections to the adult female population in the US by age, race, and region of the US.

RESULTS

Study population

We completed interviews with 73% of all eligible households contacted, yielding a study population of 1800 women. Fourteen of the 1800 women (0.8%) had missing demographic or neighborhood data and were excluded from the analysis. Of the 1786 women remaining, nearly two thirds were 25–54 years of age (table 1). Over 30% of the women had completed high school, and another 61% had post-high school education. The majority of women were white (82%) and did not receive public assistance (88%). Over 40% of the women lived with at least one other adult but no children, and another 41% lived with at least one adult and one child. On a scale between 1 (completely safe) and 10 (very dangerous), women perceived their neighborhood safety, on average, as 3 (range 1–10).

Experiences of violence

Over half of the women in the study population had experienced both personal and vicarious violence in their adult

lifetimes (table 1). Another 26% reported experiences of vicarious violence only, and 5% reported only personal experiences. Most women experiencing either personal or vicarious violence only were at least 45 years of age (personal only, 60%; vicarious only, 53%), had a post-high school education (personal only, 56%; vicarious only, 56%), were white (personal only, 86%; vicarious only, 85%), did not use public assistance (personal only, 91%; vicarious only, 91%), and lived with at least one other adult (personal only, 79%; vicarious only, 84%) (table 1). Most women experiencing both personal and vicarious forms of violence were younger than those experiencing one or the other. Women's perceptions of neighborhood safety did not vary significantly by their violence experiences, although the mean score was slightly higher—that is, perception of a more dangerous neighborhood—for women who had experienced both personal and vicarious violence.

Type of protective strategy

Behavioral strategies were the most common forms of protection reported by women with "being alert and aware of the surroundings" (99%) and "keeping doors at home locked" (96%) being the most common (table 2). Of all the behavioral strategies, martial arts and self-defense training (19%) were the least common protection methods used by women. In response

Table 3 Association between the type of violence experience and the strategies women use to protect themselves from violence

Protective strategy	Number of women (%)				Adjusted odds ratio (95% CI)		
	Personal only (n = 93)	Vicarious only (n = 473)	Personal and vicarious (n = 982)	Neither personal nor vicarious (n = 238)	Personal only vs neither	Vicarious only vs neither	Personal and vicarious vs neither
Have gun							
Yes	38 (40.9)	209 (44.2)	416 (42.4)	88 (37.0)	1.26 (0.70 to 2.28)	1.31 (0.89 to 1.94)	1.58 (1.08 to 2.29)*
No	53 (57.0)	259 (54.8)	554 (56.4)	144 (60.5)			
Ever carry weapons							
Yes	16 (17.2)	88 (18.6)	306 (31.2)	29 (12.2)	1.21 (0.56 to 2.62)	1.50 (0.90 to 2.49)	2.67 (1.66 to 4.28)*
No	76 (81.7)	384 (81.2)	671 (68.3)	208 (87.4)			
Ever carry devices							
Yes	27 (29.0)	157 (33.2)	403 (41.0)	71 (29.8)	0.92 (0.50 to 1.68)	1.09 (0.74 to 1.60)	1.57 (1.09 to 2.26)*
No	66 (71.0)	315 (66.7)	577 (58.8)	167 (70.2)			
Use home strategies							
Yes	58 (62.4)	297 (62.8)	733 (74.6)	129 (54.2)	1.52 (0.85 to 2.74)	1.23 (0.84 to 1.81)	1.92 (1.33 to 2.78)*
No	35 (37.6)	175 (37.0)	243 (24.7)	104 (43.7)			
Behavioral strategy: ever change things want to do							
Yes	57 (61.3)	308 (65.1)	750 (76.4)	148 (62.2)	0.89 (0.51 to 1.57)	0.92 (0.63 to 1.35)	1.41 (0.97 to 2.05)
No	34 (36.6)	162 (34.2)	232 (23.6)	88 (37.0)			
Behavioral strategy: ever change things need to do							
Yes	37 (39.8)	201 (42.5)	498 (50.7)	95 (39.9)	0.97 (0.54 to 1.74)	0.97 (0.66 to 1.41)	1.12 (0.79 to 1.59)
No	54 (58.1)	271 (57.3)	483 (49.2)	140 (58.8)			

Percentages may not add up to 100 because of missing values. Odds ratios adjusted for age, education, race/ethnicity, income, household composition, and neighborhood safety.
*p<0.05.

to a question about whether they ever “avoided or changed doing things they wanted to do to protect themselves from violence”, more than 70% of all women responded affirmatively. Over 40% of women had a gun in the home, but less than 15% had acquired the gun themselves for protection. Few women carried weapons other than a gun (eg, knife or club) for protection, although over 20% carried pepper spray and nearly 20% carried a noise maker, such as a personal alarm.

Type of protective strategy by experiences of violence

Women with adult experiences of violence, whether vicarious or personal, used different strategies from women who had experienced no violence in their adult lifetimes, and those with both types of experience were more likely to use protection strategies than women who had experienced either one type or the other (table 2). They were also more likely to use different types of strategies. Over 40% of the victimized women had a gun in their home, and about 65% of those had more than one. More women experiencing both personal and vicarious victimization had acquired a gun themselves for self protection, carried one, or had one while driving, compared with women experiencing one form of violence or the other, or neither.

Although few women carried weapons (other than a gun) for protection, many women with personal experiences of violence carried their keys as a weapon. Many women victimized personally also had a dog at home for protection. Approximately 25% of women with both personal and vicarious experiences of violence carried pepper spray, and over half hid weapons in their homes.

Women aged 25–54 were more likely to use some kind of protective strategy than their younger or older counterparts (not shown). More education was significantly associated with a higher percentage of women who had a gun and decided to change or avoid things they wanted to do. More white women

and those not receiving public assistance used every type of strategy studied. Women who used at least one of the protective strategies perceived their neighborhoods as more dangerous than those who did not use protection methods. The mean neighborhood safety score, however, did not exceed 3.4 (on a scale of 1–10) even for those who used protection strategies.

Protective strategy choices by type of violent experience

Women who had experienced both types of violence were 1.58 times more likely to have a gun (95% CI = 1.08 to 2.29), 2.67 times more likely to carry weapons (95% CI = 1.66 to 4.28), and 1.92 times more likely to use home protection strategies (95% CI = 1.33 to 2.78) than women who had experienced neither (table 3). In addition, women victimized both personally and vicariously were over 50% more likely to carry personal devices (95% CI = 1.09 to 2.26). Women victimized both personally and vicariously had a greater odds of using protective strategies than women experiencing one form of violence or the other, suggesting a cumulative response to protection based on their history of violence. Except for using home strategies, women only vicariously exposed to violence in their adult lifetimes had greater odds of using protective strategies than women personally victimized by violence, although these findings did not reach the traditional level of significance.

DISCUSSION

Major findings

In an effort to protect themselves from violence victimization, women employ a wide variety of strategies. Although relatively few women obtain weapons or carry weapons or other devices (eg, pepper spray), most employ behavioral self-protective practices. Overall, US women with both personal and vicarious victimization experiences are more likely to use weapons or

devices than women with no such experiences. The proportions of women using the different strategies varied little with regard to whether they had experienced only vicarious or only personal victimization, although women with both vicarious and personal experience reported the highest usage of weapons, devices, and home and behavioral strategies, suggesting a cumulative impact of multiple types of exposure to violence. Interestingly, women's reported strategies of self-protection did not vary relative to their assessment of the safety of the neighborhood in which they lived.

Literature on the availability heuristic¹⁷ suggests that the more someone has examples of an outcome (in this case, victimization experiences) "available" to them (ie, "on their radar screen"), the more salient the outcome as an influence on behavior. From these data we cannot ascertain if this mechanism is at play or not, but it does suggest interesting directions for future investigation. As Weinstein¹⁸ suggests, further research should examine more precisely the nature of the harm previously experienced as well as perceptions of the efficacy of potential precautions.

It is also important for those providing guidance to women to understand not only women's perceptions of the efficacy of precautionary measures, but also to factor in the extent to which given strategies when undertaken with the intent of safety may actually impose additional risks. For example, people with guns in their homes are at greater risk of firearm homicide and suicide than people without guns in their homes.¹⁹ The findings from this investigation add to concerns about the use of firearms by women who have been victimized. Wiebe²⁰ demonstrated that compared with adults in homes without firearms, the adjusted odds ratio for homicide deaths among women in homes with firearms was 2.72 (95% CI 1.89 to 3.90) compared with odds of 1.23 (95% CI 1.01 to 1.49) among men. Other research has described the use of firearms by nearly half of all women completing suicides and noted that more than 62% were described as having prior mental health problems, including depression.^{21, 22} Data suggest that the presence of firearms in the home increases the risk of suicide completion, particularly when not stored locked and unloaded.²³⁻²⁵

Limitations

The study is limited to the extent that it relied on self-report for which the veracity of responses could not be validated. Women may have under-reported certain practices that are less significant for them or that are socially stigmatized. It is

unlikely that women reported more self-protection behaviors than they actually engage in. Consequently, we suspect the range and frequency of practices may be in excess of what is reported here. Although our study population is broadly representative of the overall US population of women at the time the data were collected, we cannot be sure of the extent to which women's practices have changed in the intervening time period. The fact that the majority of the sample were white women with post-baccalaureate education and mean neighborhood safety scores that indicated a high perceived level of safety suggests that these results may not be generalizable to all women, particularly those less well educated, poor, of minority ethnicity, or living in more unsafe neighborhoods. Likewise, the study design was cross-sectional, limiting our ability to examine temporality issues associated with victimization experiences, choice of strategies, and perceptions of neighborhood safety. We only asked about experiences during adulthood and are not able to assess the potential impact on self-protection strategies employed as the result of violence experienced before age 18.

CONCLUSIONS

Despite its limitations, this paper's main contribution lies in its identification of the varied methods that women use to protect themselves from potential victimization. Although some women select weapons as their means of self-protection, most rely on behavioral strategies previously not well described in the literature. In addition, the paper demonstrates that women who experience vicarious victimization only and those having personal victimization experiences only do not differ that much from each other in their methods of protection. However, having both types of victimization does seem to be associated with the use of different methods.

This study also raises many questions. It would be interesting to know the extent to which women's choices may be influenced by their perceived prior success or failure in attempting to protect themselves with different methods. Such information might shed light on how women make decisions about safety strategies, and provide guidance about alternative approaches. Further study might reveal differences in approach to safety among women of different age or ethnic groups and in the presence of other community-wide protective approaches such as community policing.

Furthermore, our results raise questions about whether women are making choices that accurately weigh their actual risks of assault compared with the potential risks of the protection strategies they select. Additional research should update this study and further examine in more depth the reasoning of women with regard to making risk decisions about personal safety so as to enable effective communication about making the safest choices in protection strategies. Ultimately, this type of research can help to inform interventions to guide women in making decisions about their choices of strategies and may help to guide policies about what types of strategies should be advocated, legislated, or supported through incentives (eg, insurance premiums).

Our data do not deal with the perceptions or practices of women outside the US. Except for firearms, the other strategies are all available options for women in most developed countries. Further research to assess the choices women make in different cultural contexts could help to shape more regionally appropriate prevention practices. We could find only two studies with cross-cultural populations,^{26, 27} both of which addressed only women who had been abused by intimate partners. Clearly, more work with other ethnic groups and in other countries could add to the literature on this topic.

Key points

- Approximately 47% of all women alter things they need to do and 71% alter things they want to do because of victimization concerns.
- Women with both vicarious (knowing someone who was victimized) and personal experience reported the highest usage of weapons or devices (eg, noise makers, pepper spray).
- Women who had suffered both personal and vicarious victimization were 1.58 times more likely to have a gun, over twice as likely to carry a weapon other than a gun, and 1.92 times more likely to use home protection strategies compared with women who had no experiences.
- Women with vicarious experience only or personal experience differed little from each other with respect to self-protection choices.

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