



An Exploratory Study of Safety Scenario Planning Among Ex-Partner Stalking Victims

TK Logan¹ · Robert Walker¹

Accepted: 8 September 2024

© The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature 2024

Abstract

Purpose Safety planning is often recommended for stalking victims, yet there has been limited research on personal safety planning in general and specifically for stalking victims. This study has two overall objectives: (1) to examine whether frequency of safety scenario planning (thinking through various strategies in responding to threatening situations) among ex-partner stalking victims is associated with increased personal safety worry, safety efficacy, and other safety behaviors (e.g., seeking safety advice, carrying a safety device); and (2) to explore associations of frequency of safety scenario planning with partner abuse and stalking experiences, help-seeking, and mental health symptoms.

Method Women stalking victims were recruited from Prolific. Three groups were developed for comparisons including stalking victims who: (a) did not engage in safety scenario planning in the past year ($n = 121$); (b) engaged in one safety scenario planning activity in the past year ($n = 256$); and (c) engaged in 2 or more safety scenario planning activities in the past year ($n = 184$).

Results Bivariate results found that frequency of safety scenario planning was associated with increased personal safety worry, increased seeking and giving safety advice, and increased defensive safety behaviors. Additionally, the multivariate analysis found more frequent safety scenario planning was uniquely and significantly associated with increased personal safety worry, safety efficacy, work interference, the number of different help-seeking sources, PTSD symptoms, and sexual discomfort.

Conclusions More research is needed to provide information about best practices in safety planning to better help victims manage the short- and long-term consequences of violence exposure in their recovery journey.

Keywords Safety planning · Stalking · Victimization · Interpersonal violence · Recovery journey

I have [six] go bags full of emergency supplies. I have emergency email accounts with important information. I have family members aware of emergency plans. I keep my most cherished items close by so I can grab and go. I have safety plans for a lot of different scenarios.”¹

Between 43% and 62% of women who are stalked are stalked by ex-partners (Smith, Basile, & Kresnow, 2022;

Smith et al., 2017), and among women who have experienced partner abuse, as many as 60% report being stalked by that partner while separated (Logan & Walker, 2009a, b, 2017c). Stalking can be defined as a course of conduct (a pattern of 2 or more acts) that induces fear or concern for safety or extreme emotional distress in those being targeted (Logan & Walker, 2017c). Ex-partner stalking is associated with physical assault and lethal violence, although direct violence is more rare compared to resource losses, high fear levels, mental health symptoms such as anxiety, depression, Post-Traumatic Stress Disorder (PTSD), and discomfort with new intimate relationships (e.g., lack of trust, being reminded of the past trauma they experienced) (Logan & Cole, 2022; Logan & Showalter, 2022; Logan & Walker, 2017c; McFarlane et al., 1999, 2002).

Thus, stalking victimization from ex-partners is associated with a host of negative outcomes. Often, however,

¹ Participant discussing her safety planning activity.

✉ TK Logan
tklogan@uky.edu

¹ University of Kentucky, 333 Waller Ave, Suite 480,
Lexington, KY 40504, USA

law enforcement, court personnel and healthcare providers focus only on physical harms related to stalking while ignoring the victims' fear states, the interference in victim lives and livelihood, and mental health symptoms due to stalking victimization (Logan & Walker, 2017c). Further, women who have experienced prior victimization are at increased risk of revictimization (Abdulmohsen Alhalal et al., 2012; Logan et al., 2006a; Logan, Walker, Jordan, & LeukefeLogan et al., 2006a, b). Many professionals work with victims to help reduce the negative consequences of past victimization as well as the risk of revictimization. One "intervention" widely recommended by professionals for individuals exposed to interpersonal violence is safety planning (Campbell & Glass, 2009; Davies et al., 1998; Dutton, 1992; Hamby, 2014; Sabri et al., 2022; Wood et al., 2021).

In general, safety planning is a process that is thought to inform and empower women who are afraid or concerned for their safety by helping to identify ways to increase safety and decrease exposure to harm (Cattaneo & Goodman, 2015; Davies, 2009; Davies et al., 1998; Dutton, 1992; Sabri et al., 2022; Sullivan, 2011; Wood et al., 2021). However, there has been limited systematic research on how victims incorporate safety planning into their lives, whether safety planning frequency is related to specific characteristics of abuse and stalking, or how safety planning might impact the short- and long-term consequences of victimization. The simplicity of the term 'safety planning' and the lack of research on the process of safety planning implies that it is well understood but it often includes a wide variety behaviors and definitions that differ by study. More specifically, safety planning measurement often includes avoidance behaviors (i.e., not doing something you want to do for safety reasons such as staying home at night or avoiding certain areas or neighborhoods for safety reasons) and defensive behaviors (e.g., carrying mace, a knife, or a gun, increasing outside lighting, staying in a group when going out at night) (May et al., 2010). However, many commonly recommended safety precautions are not evidence based, limit a person's free movement such as not going out at night or not going out alone, or imply they are not able to protect themselves which can be disempowering (Hollander, 2014; Senn et al., 2022).

Another safety planning strategy is termed "scenario planning" or thinking through various strategies in responding to specific threatening situations as highlighted by the quote in the beginning of the current paper (Turchik et al., 2007). In general, research suggests that having and rehearsing plans for responding to personally threatening situations may increase feelings of personal control and reduce anxiety (Grupe & Nitschke, 2013; Lachman & Weaver, 1998, Weymar, & Hamm, 2015; Moscarello & Ledoux, 2013). Although there is limited research on the use of scenario planning for personal safety, there is research on scenario

planning for businesses. Specifically, scenario planning is recommended for decision-making in business to survive the uncertainty and unpredictability in changing markets (Amer et al., 2013; Varum & Melo, 2010a, b; Walker et al., 2013). Scenario planning for business accomplishes several things including providing an opportunity to envision plausible future situations in order to generate strategies to reduce risks, take advantage of opportunities, and avoid potential threats as well as to gain confidence by "pre-experiencing" future scenarios (Varum & Melo, 2010a).

Similarly, it may be helpful for victims to think through different threat scenarios and the anticipated barriers to safety in order to make their planned responses more effective based on their individualized fears and situation (Hagger & Luszczynska, 2014; Sniehotta et al., 2005). Research on feminist or empowerment self-defense program outcomes demonstrate that planned anticipation of responses (or response intentions) to a personal threat, such as sexual assault, is associated with more effective responses when facing an actual threat (Gidycz et al., 2008; Turchik et al., 2007). Additionally, safety scenario planning may be helpful for individuals with ongoing victimization, such as stalking, to be able safety plan in ways that are flexible over time as stalking is dynamic rather than static (Dardis et al., 2017; Diette et al., 2014; Fleming et al., 2012; Kuehner et al., 2007; Logan & Walker, 2017c, 2021b).

Although there has been limited application to personal safety planning, the Protective Motivation Theory (PMT), developed as a model of disease prevention and health promotion, may be a useful guiding framework for personal safety planning. PMT suggests that the intention to protect oneself motivates and directs protective responses, and that protective responses are more likely to be implemented when specific strategies and plans have been developed (Floyd et al., 2000; Rogers, 1975). Based on the PMT framework, there are three factors that facilitate motivation for self-protection including individuals must: (1) feel vulnerable or that there is a need for protection from personal threats; (2) believe they have the capability to prevent, deter, or cope with safety threats, and (3) have potential effective responses in responding to violence (e.g., safety scenario planning).

The current study examines safety scenario planning frequency with personal safety worries as a measure of personal vulnerability and safety efficacy which serves as a measure of the beliefs about the ability to prevent or deter violence. Safety efficacy can be defined as perceptions about the capability to deter, deflect, or cope with a threatening situation (Bandura, 1986; Hale, 1996; Jackson, 2009, 2011). In general, a greater sense of efficacy or perceived control is associated with better health and well-being (Lachman & Weaver, 1998; Maier et al., 2006; Maier & Watkins, 2010).

At least one study has found that women with lower safety efficacy felt less confident in protecting themselves, were less likely to feel they could impact the outcome of external events, were less likely to seek information about their personal safety, were more likely to feel personal characteristics increased their risk of victimization, had increased discomfort when thinking about personal safety, and had increased emotion regulation problems compared to men and women with higher safety efficacy (Logan, 2021). However, that study did not examine safety scenario planning.

The negative impact of stalking victimization can last long after the stalking subsides (Dardis et al., 2017; Diette et al., 2014; Fleming et al., 2012; Kuehner et al., 2007; Logan & Walker, 2021b). The personal and tangible costs of being stalked make it imperative to understand ways to reduce both the short- and long-term impacts on victims (Logan, 2020a, 2022; Logan & Showalter, 2022; Logan & Walker, 2017b, c). In addition to examining personal safety worry, safety efficacy, and defensive safety planning with frequency of safety scenario planning, this study will also examine differences in frequency of safety scenario planning with demographic, abuse and stalking experiences, help-seeking, and mental health symptoms.

Method

Sample

Sample Characteristics

Participants were 561 women from the U.S. and the U.K. who had been stalked by an abusive partner. The women were 30.3 years old, on average (ages ranged from 18 to 60). Overall, participants worked full (47.1%) or part-time (26.7%) and most had attended at least some college (87.4%). Most participants identified as White (84.4%). Smaller proportions of the sample identified as Hispanic (7.3%), Black (4.1%), and Asian (3.8%). Also, 38.7% were married or living with a different partner, 24.6% were dating someone different, and 36.7% were not married, living with, or dating anyone.

Sample Recruitment

Data for the current study were collected via Prolific, an online data collection platform that links researchers with individuals who volunteer for paid research opportunities, between June and August 2021 (Palan & Schitter, 2018). Participants first filled out a screener that took a few minutes for which they were paid \$0.65. The screener information was used to restrict an invite to the full study for women

between the ages of 18 and 60 years old and who: (1) reported stalking victimization; (2) were stalked by a male abusive ex-intimate partner; and (3) reported the last incident of stalking had been less than 8 years ago. Participants were classified as stalking victims using the Brief Stalking and Harassment Assessment and Risk Profile (SHARP, Logan, 2020a; Logan & Walker, 2017c, 2021b). Individuals were considered stalking victims if they indicated an ex-partner had done at least one of the following: (1) tracked, followed, or monitored them; (2) repeatedly invaded their life by initiating unwanted contact; (3) more than one time intimidated or scared them through threats; (4) used technology to threaten, harass, stalk, or sabotage them; or (5) had significantly or directly interfered with their life. Participants who selected one or more of these items and who indicated these actions made them somewhat or extremely afraid or concerned for their safety or the safety of close others were considered stalking victims.

Of the 12,639 women who participated in the screener, 8.2% met eligibility criteria for the full study. Among those invited to participate in the full study ($n=1,047$), 64.5% responded ($n=675$) and 84.9% had complete and valid data for a total sample of $n=573$. The full study took about 40 min and participants were paid USD\$6.00 for their time. There were 12 participants who indicated they were currently in a relationship with the abusive partner at the time of the survey and they were dropped from the analysis for the current study making the final sample for analysis $n=561$. All study procedures were approved by the University IRB and all participants were provided with referral resources.

Measures

Safety Planning Measures

Safety planning activities were assessed with 14 questions that had the following response options: 0 = not at all in the past year; 1 = has happened in the past year but not the past month; 2 = occasionally in the past month; 3 = a lot in the past month. A principal factor analysis with a direct oblimin rotation was done using the 14 safety planning items. The five scenario planning items clustered into one factor. The five items had an overall scale reliability of 0.872. Specific safety scenario planning items include: (a) Have you planned some safety strategies for what you thought might happen to you; (b) Have you rehearsed your plans for safety in case of being attacked or harmed; (c) Have you planned escape routes or made plans for your reactions to a threat; (d) Have you run through “what ifs” with yourself to think more specifically about safety; and (e) Have you practiced safety plans like escape routes or what you would do in situations that threaten your safety (e.g., fire, tornado, someone

breaking into my home). The remaining 9 items were used to examine differences by group. The safety planning items have been used in prior research (e.g., Logan, 2020c, d; Logan & Walker, 2021a).

Worry about Safety

Participants were asked how often they worried about their personal safety on a five-point scale (0=not at all, 4=a great deal). This question has been used in prior research (Logan & Lynch, 2022; Logan & Walker, 2021a).

Safety Efficacy

The *safety efficacy* scale consisted of 15 items that were rated on a five-point Likert scale ranging from 1 (*Strongly disagree*) to 5 (*Strongly agree*) (Logan & Walker, 2017a). Example items included “I am not confident in my ability to resist an attack,” “I am good at making quick decisions about how to respond when encountering someone who makes me concerned for my safety,” and “I have the verbal skills to effectively resist someone who makes me concerned for my safety.” The items were summed with an overall score range between 5 and 75 with good internal reliability (Cronbach’s $\alpha=0.908$). Higher scores mean a higher perceived ability to cope with a personal threat.

Relationship Characteristics

Respondents were asked how long they had been in a relationship with the ex-partner stalker, how many times they had separated from that partner, and how long they had been separated from that partner. Participants were also asked about relationship abuse. *Coercive control* was assessed using 21 items asking about dependence (e.g., isolation, I had to account for every dollar I spent, I had to have permission to work or go the doctor, I had limited personal privacy and online activity), debility (e.g., interference with sleep, control over time and labor), and dread (e.g., mind games, degradation, domination) with response options of 0 (*Never*), 1 (*A Few Times*), and 2 (*A Lot/Frequently*). This measure was developed by Logan et al. (2022) and one overall scale was used in the analysis (Cronbach’s $\alpha=0.917$). Eight items assessed *relationship threats and violence* (e.g., threats to kill you, threats to harm others, push, grab, slap, shoved or hit you, beat you up, strangulation) also from Logan et al. (2022). Response options were: 0 (*Never*), 1 (*A Few Times*), and 2 (*A Lot/Frequently*). Items were summed and had good internal reliability (Cronbach’s $\alpha=0.847$). Three items assessed *sexual abuse* during the relationship including: (1) forced you to have sex or to do sexual things when you did not want to; (2) you were too afraid to say no to sex; and,

(3) had sex with you while you were unable to say yes or no (e.g., while sleeping, intoxicated, or on medication) used in prior studies (Logan et al., 2022; Logan & Walker, 2009a, 2010). Response options were: 0 (*Never*), 1 (*A Few Times*), and 2 (*A Lot/Frequently*).

Stalking Experiences

Participants were asked how long they had been stalked (*stalking duration*) by indicating days, weeks, months, and years. Stalking duration was translated into years for analysis. Participants were also asked how long ago the last episode of stalking was. Participants were also asked about *threats* while being stalked including whether (Yes/No): (1) the stalker left objects, made gestures, or said things that felt threatening but were not direct threats; (2) threatened to hurt or kill the victim; (3) described in detail how he planned to harm the victim; (4) threatened, harassed, stalked, or assaulted others close to the victim; (5) threatened to destroy property, harm pets or to sabotage the victim in other ways; and/or (6) had friends or family harass, intimidate, threaten or stalk the victim. Participants were also asked if they had been (Yes/No): (1) *physically assaulted* while being stalked; and (2) *sexually assaulted* while being stalked. *Stalking-related fear* was assessed with four questions assessing whether and to what extent the stalker made them afraid for concerned: (1) for their own safety; (2) for the safety of others; (3) about a significant financial or social impact; or (4) whether they had made life changes for safety reasons. Response options included: 0 (*Not at all*), 1 (*Somewhat*), and 2 (*Extremely*). Responses were summed for an overall stalking-related fear scale.

Stalking Experiences

Participants were asked if the ex-partner stalker had ever engaged in any of the 20 (Yes/No) *sexual harassment* tactics from the Sexual Experiences Survey (SEQ) (Fitzgerald et al., 1999) which has been used in prior research (Logan & Cole, 2022; Logan & Landhuis, 2023). Several subcategories of harassment were assessed including: (1) *verbal sexual harassment* (e.g., embarrassed you by treating you like a sex object in front of others, called you a sexist slur, talked about your body parts inappropriately), (2) *unwanted sexual advances* (e.g., made or forced you to touch them/their body parts, made unwanted attempts to stroke, fondle, or kiss you, repeatedly asked you for sexual pictures or videos of yourself), and (3) *sexual coercion* (e.g., made you feel threatened with some sort of retaliation if you were not sexually cooperative, threatened to spread a sexually based rumor about you). Because the three scales were highly correlated (ranging between $r=.611$ to $r=.694$) an

overall *sexual harassment* scale was used in the multivariate analysis by counting the “Yes” responses (Cronbach’s $\alpha = 0.913$).

Work Interference

Work interference was assessed using 14 (No/Yes) items that asked about on-the-job harassment, work disruption, and interference with job performance. Responses for all items were summed into one scale for this study, ranging from 0 to 14. These items were adapted from prior work (Logan et al., 2007; Logan & Showalter, 2022).

Resource Losses

Participants were asked (Yes/No) if they ever experienced 16 different *resource losses* including basic resources (e.g., food, housing), status-related resources (e.g., employment, social support/networks, opportunity for advancement), and investment-related resources (e.g., time) because of the ex-partner stalker. Items were summed and scores ranged from 0 to 16. These items have been used in other research (Logan & Landhuis, 2022; Logan & Showalter, 2022).

Help Seeking Sources

Participants were asked if they had ever (Yes/No) talked or sought help regarding the stalking by the ex-partner (i.e., sought help from a counselor, an advocate, police, friends/family). The total number of different sources victims sought help from was created by summing the number of “Yes” response (ranging from 0 to 8).

Mental Health Symptoms

Participants were asked to report how often they experienced any of nine items assessing *depression* in the past two-weeks with responses: 0 (*Not at all*), 1 (*Several days*), 2 (*Over half the days*), and 3 (*Nearly every day*) with scores ranging from 0 to 27. These items were from the Patient Health Questionnaire (PHQ-9, Kroenke et al., 2001). *Anxiety* symptoms were assessed using the Generalized Anxiety Disorder (GAD-7, Spitzer et al., 2006). Participants were asked to report on the frequency of seven symptoms in the past two weeks with responses: 0 (*Not at all*), 1 (*Several days*), 2 (*Over half the days*), and 3 (*Nearly every day*) with scores ranging from 0 to 21. Because depression and anxiety symptoms were highly correlated ($r = .795$) the combined sum of all items were used in the multivariate analysis (Cronbach’s $\alpha = 0.945$). *Post-Traumatic Stress Disorder (PTSD)* symptoms experienced in the past 12-months were assessed using a 4-item PTSD checklist derived from the

PCL-5 (Price et al., 2016). Response options ranged from 0 (*Not at all*) to 4 (*Extremely*) and it had good internal reliability (Cronbach’s $\alpha = 0.851$). A summed score was used in this study (Min. = 0, Max. = 16).

Sexual Discomfort

Three items were used to examine *sexual discomfort*, informed by the research literature (DiMauro et al., 2018; van Berlo & Ensink, 2000; Vitek & Yeater, 2021). Participants were asked, “How much do you think the following interferes with your ability to enjoy sexual activity in the past year?” (1) “my lack of comfort with sexual activity or sexual activity (or certain sexual acts) trigger me”; (2) “my past history of victimization”; and (3) “trust issues I have.” Response options ranged from 0 (*Never/rarely*) to 3 (*Most or all of the time*). The items were summed with a minimum possible score of 0 and a maximum of 9 with adequate internal reliability (Cronbach’s $\alpha = 0.795$). For bivariate analysis, the responses were re-coded to whether the issues interfered with their ability to enjoy sexual activity in the past year or not (0 = No; 1–3 = Yes).

Data Analysis Plan

The overall goal of the current study was to explore association of selected factors with the frequency of safety scenario planning. To examine frequency, three groups were created using the five items to measure safety scenario planning described in the measures section. Groups included stalking victims who: (1) did not engage in any safety scenario planning in the past year ($n = 121$); (2) engaged in one safety scenario planning activity in the past year ($n = 256$); and (3) engaged in 2 or more safety scenario planning activities in the past month ($n = 184$). Chi-squares and one-way ANOVAs were used to examine bivariate differences for the three groups. Due to multiple bivariate comparisons, $p < .01$ was used as the significance level. A linear regression was used to examine factors uniquely associated with the frequency of safety scenario planning (created by summing the frequency across the five items) including victim age, worry about personal safety, safety efficacy, coercive control, relationship physical and sexual abuse, stalking-related fear, length of time since the last episode of stalking, sexual harassment, work interference, resources lost, help-seeking sources used, depression/anxiety symptoms, PTSD symptoms, and sexual discomfort. Multicollinearity was examined and the tolerance and variance inflation factor (VIF) were within the acceptable ranges (tolerance > 0.10 and VIF < 2.3 , Mertler & Vannatta, 2005). Further, a normal probability plot was examined with the plots showing a normal distribution.

Homoscedasticity plots were also examined and appeared to be acceptable.

Results

Safety Planning Activities

As Table 1 shows, more respondents who engaged in frequent safety scenario planning both sought and gave safety advice from friends and family as well as from other sources than those who did no or some safety scenario planning. More women who engaged in some safety planning both sought and gave safety advice from friends and family as well as from other sources than those who did no safety scenario planning.

More women who engaged in frequent safety scenario planning carried a safety device, had a safety device at home, practiced with a safety device, and took a self-defense class than respondents in the other two groups. More individuals who engaged in some safety scenario planning also carried a safety device and had one at home, practiced with a safety device, and took a self-defense class. Only 8.6% of the sample indicated they had a gun at home for safety and 5.3% had carried a gun for safety in the past year with no differences by group. Women in the frequent safety scenario planning group worried more about their personal safety than women in the other two groups.

Relationship Abuse and Stalking Experiences

Respondents in the frequent safety scenario planning group were significantly younger than those who did not engage

in safety scenario planning in the past year (see Table 2). When examining relationship characteristics and abuse, respondents in the frequent safety scenario planning group reported more sexual abuse during the relationship than the other two groups.

Women in the frequent safety scenario planning group reported more stalking-related fear and more of them reported sexual assault while being stalked than the other two groups. Women in the frequent safety scenario planning group also experienced more work interference than the other two groups. Both of the safety scenario planning groups reported more sexual harassment than those that did not engage in safety scenario planning. More women in the frequent safety scenario planning group reported the last episode of stalking was 3 years or less and they had more resource losses than the other two groups. More women who did some safety scenario planning in the past year reported the last episode of stalking was 3 years or less and they had more resource losses than women who did not report engaging in safety scenario planning in the past year.

Women in the frequent safety scenario planning group sought help from a greater number of different sources than women who did not engage in safety scenario planning in the past year. More women who engaged in any safety scenario planning had sought help from a mental health counselor than women who did not engage in safety scenario planning in the past year. More women in the frequent safety scenario planning group reporting seeking help from a victim advocate in the past year compared to the other two groups.

Women in the frequent safety scenario planning group reported more depression/ anxiety and PTSD symptoms than women in the other two groups, while women who

Table 1 Safety advice, behaviors, worry about safety, and safety efficacy by safety scenario planning group

In the past year	No Safety Planning (<i>n</i> = 121)	Some Safety Planning (<i>n</i> = 256)	Frequent Safety Planning (<i>n</i> = 184)	DF	X ² or F	Cramer's V or Eta ²
Sought or gave safety advice						
Sought safety advice from friends and family	2.5% ^a	39.1% ^b	56.0% ^c	2	91.025**	0.403
Sought advice from others or read about crime prevention strategies	4.1% ^a	30.1% ^b	55.4% ^c	2	88.747**	0.398
Gave advice about safety to friends or family	8.3% ^a	46.9% ^b	65.2% ^c	2	96.862**	0.416
Defensive safety behaviors						
Carry device other than gun for safety	19.0% ^a	41.0% ^b	59.8% ^c	2	50.067**	0.299
Have a safety device other than gun at home	7.4% ^a	35.9% ^b	53.3% ^c	2	67.007**	0.346
Practice with a safety device	4.1% ^a	15.2% ^b	27.2% ^c	2	28.567**	0.226
Took a self-defense class/ training	3.3% ^a	8.6% ^b	19.6% ^c	2	22.525**	0.200
Carry gun for safety	1.7%	5.5%	7.6%	2	5.129	0.077
Have a gun at home	2.5%	9.0%	12.0%	2	8.490	0.014
Frequency of worry about safety	2.4 ^a	2.5 ^a	2.9 ^b	2, 558	15.538**	0.053
Safety efficacy (18–75)	44.1	44.4	43.8	2, 558	0.192	0.001

p* < .01; *p* < .001; subscripts that differ are significant at *p* < .05

Table 2 Relationship characteristics and abuse, stalking experiences, help-seeking, and mental health by safety planning group

	No safety planning (<i>n</i> = 121)	Some safety planning (<i>n</i> = 256)	Frequent safety planning (<i>n</i> = 184)	DF	X ² or F	Cramer's V or Partial Eta ²
Age	32.5a	30.3	28.8b	2, 558	5.334*	0.019
Relationship characteristics and abuse						
Average years together	4.2	3.4	2.9	2, 558	3.244	0.011
Average times separated	3.7	3.0	3.1	2, 558	1.715	0.006
Average years separated	5.2	4.5	4.1	2, 550	2.538	0.009
Coercive Control (1–42)	27.0	28.1	29.6	2, 558	3.217	0.011
Physical abuse and threats (0–16)	5.5	4.6	5.3	2, 558	3.515	0.012
Sexual abuse (0–6)	2.2a	2.5a	3.2b	2, 558	13.316**	0.046
Stalking experiences						
Years stalked	4.5	3.7	3.2	2, 557	3.506	0.012
Last episode of stalking was 3 years ago or less	48.8%a	61.3%b	70.7%c	2	14.825*	0.163
Stalking threat count (0–6)	2.8	2.8	3.2	2, 558	3.178	0.011
Stalking-related fear (1–8)	4.9a	5.0a	5.5b	2, 558	5.975*	0.021
Physically assaulted during stalking	47.9%	39.1%	48.9%	2	5.081	0.095
Sexually assaulted during stalking	33.9%a	32.8%a	47.8%b	2	11.338*	0.142
Sex harassment (0–20)	9.8a	12.1b	13.2b	2, 558	13.506**	0.046
Work interference (0–14)	4.9a	5.3a	6.5b	2, 558	10.448**	0.036
Resource losses (0–16)	8.7a	9.6b	10.4c	2, 558	10.174**	0.035
Help seeking sources (0–8)						
Friends/family	84.3%	89.5%	89.1%	2	2.315	0.064
Online (website, chat)	34.7%	49.6%	47.3%	2	7.652	0.117
Work (coworker, supervisor, security)	44.6%	49.6%	53.3%	2	2.179	0.062
Mental health or substance abuse counselor	33.9%a	50.8%b	53.8%b	2	12.930*	0.152
Doctor/health professional	23.1%	24.6%	30.4%	2	2.267	0.068
Advocate (advocate, hotline, shelter)	22.3%a	30.1%a	39.1%b	2	9.954*	0.133
Talked to police	34.7%	34.8%	38.0%	2	0.584	0.032
Protective Order	19.8%	19.9%	23.4%	2	0.900	0.040
Mental health symptoms						
Depression and anxiety symptoms (0–21)	15.0a	18.2b	23.8c	2, 558	23.364**	0.077
PTSD symptoms (0–16)	5.5a	7.4b	9.8c	2, 558	41.077**	0.128
Sexual discomfort (0–9)	2.8a	3.1a	4.7b	2, 558	25.866**	0.085
Discomfort or triggers interferes with sexual activity	33.9%a	47.7%b	68.5%c	2	37.783**	0.260
Past history of victimization interferes with sexual activity	52.1%a	63.7%b	82.1%c	2	32.466**	0.241
Trust issues interferes with sexual activity	62.8%a	71.9%a	85.3%b	2	20.886**	0.193

p* < .01; *p* < .001; subscripts that differ are significant at *p* < .05

did some safety scenario planning had more mental health symptoms than women who did not report safety scenario planning in the past year. Overall, women in the frequent safety scenario planning group reported more overall sexual discomfort than the other two groups. When looking at the individual reasons for discomfort during sex, more women in the frequent safety scenario planning group reported they experienced discomfort and/or triggers, that their discomfort was due to past victimization experiences, or that they had trust issues that interfered with intimate sexual activity compared to the other two groups. More women who did some safety scenario planning in the past year reported discomfort and/or triggers and that their discomfort was due

to past victimization experiences compared to women who did not report engaging in safety scenario planning in the past year.

Multivariate Analysis

Results of the linear regression found several factors associated with frequency of safety scenario planning as shown in Table 3 ($F(15, 545) = 13.483, p < .001$, adjusted $R^2 = 0.251$). Increased worry about safety, increased safety efficacy, increased work interference, increased help-seeking sources, increased PTSD symptoms, and increased

Table 3 Multivariate results for safety scenario planning frequency

	Safety planning frequency			95% confidence level	
	β	t	p value	Lower bound	Upper bound
Age	-0.072	-1.736	0.083	-0.060	0.004
Worry about personal safety	0.167	4.278	<0.001	0.366	0.987
Safety efficacy	0.174	4.467	<0.001	0.037	0.095
Coercive control	-0.026	-0.505	0.614	-0.053	0.031
Physical abuse and threats	-0.056	-1.184	0.237	-0.150	0.037
Sexual assault	0.056	1.146	0.252	-0.079	0.300
How long ago was last episode of stalking	-0.074	-1.953	0.051	-0.556	0.002
Stalking-related fear	0.043	0.922	0.357	-0.097	0.267
Sexual harassment	-0.012	-0.234	0.815	-0.072	0.057
Work interference	0.132	2.747	0.006	0.041	0.249
Resources lost	-0.018	-0.316	0.752	-0.142	0.103
Different help-seeking sources	0.102	2.440	0.015	0.038	0.354
Depression/anxiety symptoms	0.040	0.897	0.370	-0.015	0.041
PTSD symptoms	0.256	5.210	<0.001	0.137	0.303
Sexual discomfort	0.121	2.757	0.006	0.048	0.284

* $p < .05$; ** $p < .01$; *** $p < .001$

sexual discomfort were all uniquely and significantly associated with increased frequency of safety scenario planning.

Discussion

Personal safety planning includes strategies to prevent revictimization as well as to help women feel more capable of protecting themselves by helping them prepare for a personal safety threat which may increase perceived control and decrease anxiety (Brecklin, 2008; Gidycz & Dardis, 2014; Hollander, 2014; Jordan & Mossman, 2018; Pinciotti & Orcutt, 2018; Senn et al., 2017). Most safety planning activities revolve around avoidance or defensive strategies and (Messing et al., 2017; Sabri et al., 2022; Wood et al., 2021). However, most of these strategies are not evidence-based, some of the strategies limit a person's lifestyle, and some may send an unintentional message that they are not capable of protecting themselves rather than building confidence or self-efficacy (Hollander, 2014; Senn et al., 2022). This study is one of the first to examine safety scenario planning. Safety scenario planning can be defined as thinking through various potential threats meaningful to them personally, including threats victims have faced in the past, threats victims anticipate could happen in their unique

circumstances, and threats that victims may not believe will happen but still worry about. Safety scenario planning is individualized to the specific fears and situation of the individual and can be used to adapt to the ever changing threats inherent in ongoing victimization such as stalking (Logan & Walker, 2017c). Although scenario planning is primarily discussed as a decision-making strategy for businesses to survive the unpredictability or uncertainty in changing markets in the research literature (Amer et al., 2013; Varum & Melo, 2010b; Walker et al., 2013), it may be useful to consider in personal safety planning.

The Protective Motivation Theory (PMT) provides some guidance for safety planning research (Floyd et al., 2000; Rogers, 1975). The current study examined associations of the three factors suggested as necessary to direct and motivate personal protection (i.e., threat response intentions, actual protective actions) by the PMT including safety worry (perceived personal vulnerability), safety efficacy (beliefs about the ability to prevent or deter violence), and safety scenario planning (the availability of responses and their perceived effectiveness in responding to violence) with other safety protection behaviors. Results found that past year safety scenario planning frequency among ex-partner stalking victims was associated with seeking and giving safety advice, carrying devices for safety, having a device at home for safety, and practicing with safety devices compared to women who did not engaged in recent safety scenario planning (Logan & Walker, 2018a, b). In addition, there was a relationship between the frequency of safety scenario planning and the other safety protection behaviors (e.g., advice seeking, carrying a safety device) compared to women who reported engaging in none of the safety scenario planning strategies, while more women who endorsed 2 or more safety scenario planning strategies engaged in other safety protection behaviors compared to the other two groups. It should be noted that results from the current study found almost 1 in 5 women who reported carrying a safety device even though they did not report engaging in safety scenario planning. There may be several explanations for these results including that some women may not be aware of their safety scenario planning, some women may have previously engaged in safety scenario planning resulting in carrying a safety device but did not engage in safety scenario planning in the past year, or that the items used to measure safety scenario planning did not capture the kind of scenario planning they engage in. Neither the data used for this study nor other research answers these questions.

One of the most harmful aspects of ex-partner stalking victimization may be the significant fear and anxiety that the stalker provokes in victims which is layered on top of the fear and trauma experienced while in the relationship (Logan, 2020a, b, 2022; Logan & Langhinrichsen-Rohling,

2021; Logan & Walker, 2017c, 2021b). Stalking victims have no control over the stalker's actions and they are unable to predict when and where the stalker will strike next or what they will do, which leaves victims with uncertainty about how to respond and not having a plan for responses or strategies to cope with a threat may be particularly difficult when personal safety is threatened (Grupe & Nitschke, 2013). Thus, one hypothesis about why scenario planning may be helpful for stalking victims is that it can reduce uncertainty about how to respond to potential threats (i.e., scenario planning for situations and fears about threats that may occur), and reducing response uncertainty may increase feelings of personal control and reduce fear and anxiety (Grupe & Nitschke, 2013; Lachman & Weaver, 1998 et al., 2015; Moscarello & Ledoux, 2013). The adaptive value of precautionary behavior, including safety habits, lies in providing individuals with the opportunity to practice defensive means safely, and thus to prepare for the eventuality of real danger which accords with the "better safe than sorry" principle (Eilam et al., 2011).

Because there has been limited research on safety planning in general and very limited or no prior research on safety scenario planning, very little is known about the effectiveness of safety planning (and likewise safety scenario planning). Even so, research on feminist or empowerment self-defense programs may be instructive, as these programs train participants on scenario planning as well as practice of verbal and behavioral self-defense strategies (Hollander, 2014, 2018; Nurius et al., 2000; Orchowski et al., 2008; Senn et al., 2017, 2022). Outcomes of these programs found that participants had increased risk detection skills, increased self-efficacy and confidence one's ability to fight off an attacker, increased intention to actively resist an attack, and actual reductions in subsequent assault in the follow-ups compared to control groups (Hollander, 2014, 2018; Nurius et al., 2000; Orchowski et al., 2008; Senn et al., 2017, 2022). In fact, program participants not only experienced fewer sexual assault completions they also experienced less sexual assault attempts (Senn et al., 2022). However, these studies did not directly measure frequency of safety scenario planning, nor do they instruct professionals on practices that can be utilized outside of the self-defense training program. Additionally, these programs may or may not help victims with all of their safety concerns such as preserving resource losses.

Stalking victims endure significant resource losses at the hands of stalkers, and those with more resource losses during the stalking duration have increased long-term consequences (Logan & Landhuis, 2022; Logan & Showalter, 2022). Results of the current study showed there were many similarities between partner abuse and stalking experiences across the three groups. However, interference with work

by the abusive partner was associated with increased safety scenario planning at both the bivariate and multivariate level. One of the most important resources for victims is employment and partner abuse and stalking can impact both short-term and long-term employment stability (Adams et al., 2012; Crowne et al., 2011; Logan et al., 2007; Logan & Showalter, 2022; Sanders, 2015; Showalter et al., 2019). Additionally, employment is important for women seeking to initiate and maintain separation from abusive ex-partners, while at the same time providing a convenient target for stalkers to harass their victims (Logan & Showalter, 2022). Other research has also found that stalking victims who report their ex-partner interfered with their resources also report help-seeking from a greater number of different sources (Logan & Landhuis, 2022; Logan & Showalter, 2022). Similarly, the current study found that those who more frequently safety scenario plan also sought help from a greater number of different sources. Thus, safety planning for physical safety but also for protection of key resources is crucial. How these three factors are associated (work interference, help-seeking, and frequency of safety scenario planning) is yet to be determined.

At the bivariate level, both sexual harassment and sexual abuse/assault (during the relationship and during the course of stalking) were associated with increased frequency of safety scenario planning. Past research has found that stalking victims have higher rates of partner sexual assault, with one study finding that three times more women stalked by their abusive ex-partner had been raped by that partner during the relationship compared to women who had not been stalked (Logan & Cole, 2011). Women with sexual assault histories may have increased discomfort in new intimate relationships, in part, to feeling unsafe or being triggered or uncomfortable during sex because sexual activity is closely associated with the source of trauma (Logan & Landhuis, 2023; Ramsey & Hoyt, 2015; Sáez et al., 2019). Another reason may be that sexual assault has been associated with reductions in sexual autonomy and the ability to voice needs and concerns during sexual activities (Franz et al., 2016; Gidycz et al., 2008; Sáez et al., 2019). Although research focused on the recovery process for victims has received more attention in the past few years (Sinko et al., 2021; Sinko & Saint Arnault, 2020), most of this work focuses on general recovery rather than safety or recovery within intimate sexual relationships. However, given the connection of sexual assault and negative sexual health outcomes and the importance of positive sexual relationships to well-being and mental health (Davison et al., 2009; Sánchez-Fuentes et al., 2014), helping women with victimization histories feel safer within sexual intimacy situations through safety planning may be important.

Additionally, at the bivariate level, increased depression/anxiety and PTSD symptoms were associated with frequent safety scenario planning but only PTSD symptoms remained significantly associated with frequent safety scenario planning in the multivariate model. It is not clear, from the current study, whether PTSD symptoms increase safety scenario planning, whether safety scenario planning increases PTSD symptoms, or if there is a bidirectional influence of the two factors. It is possible that the “what if” process inherent in scenario planning might elicit negative emotions which means emotion management skills are needed to keep someone from becoming overwhelmed (Baumeister, Vohs, Nathan DeWall, & Zhang, 2007; Wirtz et al., 2014). More recent stalking experiences may be associated with increased distress and safety planning as found in the current study where women who engaged in frequent safety scenario planning had experienced stalking more recently compared to the other two groups and this finding is consistent with past research (Logan, 2021). It may also be that individuals with PTSD symptoms engage in safety planning as a way to take back control which can reduce anxiety at some point, but that those who engage in more safety planning are motivated to do so because those symptoms are higher (Başoğlu et al., 2007; Grupe & Nitschke, 2013; Hartley et al., 2014). Additionally, bivariate analysis showed that stalking victims who engaged in more frequent safety scenario planning also sought help from a mental health provider as well as from an advocate. It could also be that the safety scenario planning resulted from those visits. On the other hand, it could be that the feelings of not being safe or their mental health symptoms facilitated them to seek help from professionals. There are many questions that need research exploration to answer questions about the role of PTSD and safety planning. For example, do the particular characteristics of their victimization experiences such as sexual assault, victim personalities or individual characteristics such as age, or some interaction of all of these affect the association of PTSD and/or increased or decreased safety planning in general or specific types of safety planning (e.g., defensive, scenario)? Research should also explore whether the presence of PTSD-related hypervigilance or other specific symptoms contribute to greater likelihood for safety planning.

Although the sample for the current study was a community-based sample it was also a convenience sample that included mostly white, educated, and employed women. Thus, the sample is not generalizable to all women, women who have not experienced stalking, or to women who seek services for partner abuse or stalking. Also, there is scant research that has investigated the safety planning process, particularly safety scenario planning. Thus, measurement of this process needs additional research for people who have

experienced interpersonal victimization as well as those in the general population. Research is also needed to examine the longitudinal effects of safety planning in reducing fear states and harms and increasing wellbeing as well as how effective safety scenario planning is more generally. Even the outcomes of safety planning to measure are not clear. A host of outcomes may be salient including reduction in revictimization, fear levels, mental health symptoms, or an increase in self-protection actions. Further, the current study was cross sectional rather than longitudinal, thus only associations were examined rather than directionality of safety planning with other outcomes (e.g., resource loss, mental health symptoms). Additionally, this study was exploratory in nature and there are limited theories or frameworks currently to guide the study of safety planning. Due to the lack of information in the research literature qualitative or mixed methods to better understand what people do when they think about safety and safety planning is warranted.

In conclusion, this study is one of the first to examine safety scenario planning and hopefully serves as an interim step in this research agenda. Safety scenario planning can be defined as thinking through various potential threats meaningful to them personally, including threats victims have faced in the past, threats victims anticipate could happen in their unique circumstances, and threats that victims may not believe will happen but still worry about. The current study serves as an important interim step in the understanding of personal safety planning as safety planning is one of the most recommended “interventions” for those who have experienced interpersonal victimization and those hoping to avoid victimization. Yet, there has been limited research to inform victim advocates, mental health professionals, and other practitioners about safety planning effectiveness and best practices. Part of the problem with limited research on safety planning may be related to funding which has been a concern with regard to federal funding for self-defense programs even though there are demonstrated significant benefits to many participants of the program (McCaughy & Cermele, 2017). Even so, research is clearly needed to examine a variety of questions about safety planning. It is not clear what kind or how best to safety plan in general or how to best help individuals who are interested in safety planning. It is not clear how safety planning impacts mental health symptoms or if there are certain mental health conditions (e.g., PTSD) that respond better or worse to safety planning activities. Further, future research is needed to better understand how safety scenario planning is associated with defensive and avoidance safety behaviors and ultimately to responding to personal threats. Future research is also needed to better understand safety planning differences by situation including for women with partner abuse exposure, stalking victims, and the general population with

or without victimization histories. Some questions might include whether people safety plan in the same way, whether some safety planning strategies are better than others, and how effective safety planning.

Acknowledgements The author acknowledges the University of Kentucky Department of Behavioral Science for funding this research as well as Jeb Messer for help with the data collection.

Author Contributions First author conducted data collection, analysis, and first draft of manuscript. The second author editing and contributed to discussion implications.

Funding Internal funding was used for this study.

Data Availability Not publicly available.

Declarations

Ethical Approval The study was approved by the University of Kentucky IRB. Consent was provided for both the study and publication of results and was electronically agreed to before any questions were asked. The survey was anonymous.

Conflict of Interest The authors have no conflict of interest to declare that are relevant to this article.

References

- Abdulmohsen Alhalal, E., Ford-Gilboe, M., Kerr, M., & Davies, L. (2012). Identifying factors that predict women's inability to maintain separation from an abusive partner. *Issues in Mental Health Nursing*, 33(12), 838–850. <https://doi.org/10.3109/01612840.2012.714054>
- Adams, A. E., Tolman, R. M., Bybee, D., Sullivan, C. M., & Kennedy, A. C. (2012). The impact of intimate partner violence on low-income women's economic well-being. *Violence against Women*, 18(12), 1345–1367. <https://doi.org/10.1177/1077801212474294>
- Amer, M., Daim, T. U., & Jetter, A. (2013). A review of scenario planning. *Futures*, 46, 23–40. <https://doi.org/10.1016/j.futures.2012.10.003>
- Bandura, A. (1986). Fearful expectations and avoidant actions as coefficients of perceived self-efficacy. *American Psychologist*, 41(12), 1389–1391. <https://doi.org/10.1037/0003-066X.41.12.1389>
- Başoğlu, M., Livanou, M., & Crnobaric, C. (2007). Torture vs other cruel, inhuman, and degrading treatment. *Archives of General Psychiatry*, 64(3), 277. <https://doi.org/10.1001/archpsyc.64.3.277>
- Baumeister, R. F., Vohs, K. D., DeWall, N. C., & Zhang, L. (2007). How emotion shapes behavior: Feedback, anticipation, and reflection, rather than direct causation. *Personality and Social Psychology Review*, 11(2), 167–203.
- Brecklin, L. R. (2008). Evaluation outcomes of self-defense training for women: A review. *Aggression and Violent Behavior*, 13(1), 60–76. <https://doi.org/10.1016/j.avb.2007.10.001>
- Campbell, J., & Glass, N. (2009). Safety planning, danger, and lethality assessment. In C. Mitchell, & D. Anglin (Eds.), *Intimate partner violence: A health-based perspective* (pp. 319–334). Oxford University Press.
- Cattaneo, L. B., & Goodman, L. A. (2015). What is empowerment anyway? A model for domestic violence practice, research, and evaluation. *Psychology of Violence*, 5(1), 84.
- Crowne, S. S., Juon, H. S., Ensminger, M., Burrell, L., McFarlane, E., & Duggan, A. (2011). Concurrent and long-term impact of intimate partner violence on employment stability. *Journal of Interpersonal Violence*, 26(6), 1282–1304. <https://doi.org/10.1177/0886260510368160>
- Dardis, C. M., Amoroso, T., & Iverson, K. M. (2017). Intimate partner stalking: Contributions to PTSD symptomatology among a national sample of women veterans. *Psychological Trauma: Theory Research Practice and Policy*, 9(Suppl 1), 67–73. <https://doi.org/10.1037/tra0000171>
- Davies, J. (2009). *Advocacy beyond leaving: Helping battered women in contact with current or former partners*. Family Violence Prevention Fund.
- Davies, J., Lyon, E., & Monti-Catania, D. (1998). *Safety planning with battered women: Complex lives/difficult choices*. Sage Publications, Inc.
- Davison, S. L., Bell, R. J., LaChina, M., Holden, S. L., & Davis, S. R. (2009). Original research—psychology: The relationship between self-reported sexual satisfaction and general well-being in women. *The Journal of Sexual Medicine*, 6(10), 2690–2697. <https://doi.org/10.1111/j.1743-6109.2009.01406.x>
- Diette, T. M., Goldsmith, A. H., Hamilton, D., Darity, W., & McFarland, K. (2014). Stalking: Does it leave a psychological footprint? *Social Science Quarterly*, 95(2), 563–580. <https://doi.org/10.1111/ssqu.12058>
- DiMauro, J., Renshaw, K. D., & Blais, R. K. (2018). Sexual vs. non-sexual trauma, sexual satisfaction and function, and mental health in female veterans. *Journal of Trauma & Dissociation*, 19(4), 403–416. <https://doi.org/10.1080/15299732.2018.1451975>
- Dutton, M. (1992). *Empowering and healing the battered woman*. Springer Publishing Company.
- Eilam, D., Izhar, R., & Mort, J. (2011). Threat detection: Behavioral practices in animals and humans. *Neuroscience & Biobehavioral Reviews*, 35(4), 999–1006.
- Fitzgerald, L. F., Magley, V. J., Drasgow, F., & Waldo, C. R. (1999). Measuring sexual harassment in the military: The sexual experiences questionnaire (seq-dod). *Military Psychology*, 11(3), 243–263. https://doi.org/10.1207/s15327876mp1103_3
- Fleming, K. N., Newton, T. L., Fernandez-Botran, R., Miller, J. J., & Burns, V. E. (2012). Intimate partner stalking victimization and posttraumatic stress symptoms in post-abuse women. *Violence against Women*, 18(12), 1368–1389. <https://doi.org/10.1177/1077801212474447>
- Floyd, D. L., Prentice-Dunn, S., & Rogers, R. W. (2000). A meta-analysis of research on protection motivation theory. *Journal of Applied Social Psychology*, 30(2), 407–429.
- Franz, M. R., DiLillo, D., & Gervais, S. J. (2016). Sexual objectification and sexual assault: Do self-objectification and sexual assertiveness account for the link? *Psychology of Violence*, 6(2), 262–270. <https://doi.org/10.1037/vio0000015>
- Gidycz, C. A., & Dardis, C. M. (2014). Feminist self-defense and resistance training for college students: A critical review and recommendations for the future. *Trauma Violence & Abuse*, 15(4), 322–333.
- Gidycz, C. A., Van Wynsberghe, A., & Edwards, K. M. (2008). Prediction of women's utilization of resistance strategies in a sexual assault situation. *Journal of Interpersonal Violence*, 23(5), 571–588. <https://doi.org/10.1177/0886260507313531>
- Grupe, D. W., & Nitschke, J. B. (2013). Uncertainty and anticipation in anxiety: An integrated neurobiological and psychological perspective. *Nature Reviews Neuroscience*, 14(7), 488–501. <https://doi.org/10.1038/nrn3524>
- Hagger, M. S., & Luszczynska, A. (2014). Implementation intention and action planning interventions in health contexts: State of the research and proposals for the way forward. *Applied Psychology: Health and Well-Being*, 6(1), 1–47.

- Hale, C. (1996). Fear of crime: A review of the literature. *International Review of Victimology*, 4(2), 79–150. <https://doi.org/10.1177/026975809600400201>
- Hamby, S. (2014). *Battered women's protective strategies: Stronger than you know*. Oxford University Press.
- Hartley, C. A., Gorun, A., Reddan, M. C., Ramirez, F., & Phelps, E. A. (2014). Stressor controllability modulates fear extinction in humans. *Neurobiology of Learning and Memory*, 113, 149–156.
- Hollander, J. A. (2014). Does self-defense training prevent sexual violence against women? *Violence against Women*, 20(3), 252–269. <https://doi.org/10.1177/1077801214526046>
- Hollander, J. A. (2018). Women's self-defense and sexual assault resistance: The state of the field. *Sociology Compass*, 12(8), e12597.
- Jackson, J. (2009). A psychological perspective on vulnerability in the fear of crime. *Psychology Crime & Law*, 15(4), 365–390. <https://doi.org/10.1080/10683160802275797>
- Jackson, J. (2011). Revisiting risk sensitivity in the fear of crime. *Journal of Research in Crime and Delinquency*, 48(4), 513–537. <https://doi.org/10.1177/0022427810395146>
- Jordan, J., & Mossman, E. (2018). Back off buddy, this is my body, not yours: Empowering girls through self-defense. *Violence against Women*, 24(13), 1591–1613.
- Kroenke, K., Spitzer, R. L., & Williams, J. B. W. (2001). The phq-9. *Journal of General Internal Medicine: JGIM*, 16(9), 606–613. <https://doi.org/10.1046/j.1525-1497.2001.016009606.x>
- Kuehner, C., Gass, P., & Dressing, H. (2007). Increased risk of mental disorders among lifetime victims of stalking – findings from a community study. *European Psychiatry*, 22(3), 142–145. <https://doi.org/10.1016/j.eurpsy.2006.09.004>
- Lachman, M. E., & Weaver, S. L. (1998). The sense of control as a moderator of social class differences in health and well-being. *Journal of Personality and Social Psychology*, 74(3), 763–773. <https://doi.org/10.1037/0022-3514.74.3.763>
- Logan, T. (2020a). Beyond a dichotomy: Threat context factors associated with fear and stalker capability of harm among women stalked by (ex)partners, close acquaintances, and distant acquaintances/strangers. *Journal of Threat Assessment and Management*, 7(1–2), 603–631. <https://doi.org/10.1037/tam0000136>
- Logan, T. (2020b). Examining stalking experiences and outcomes for men and women stalked by (ex)partners and non-partners. *Journal of Family Violence*, 35(7), 729–739. <https://doi.org/10.1007/s10896-019-00111-w>
- Logan, T. (2020c). Is having a gun for safety associated with feeling safer, safety planning, and more assertive responses to conflict among women with interpersonal victimization experiences? *Violence and Gender*, 7(2), 57–65. <https://doi.org/10.1089/vio.2020.0035>
- Logan, T. (2020d). What would you do? Examining gun ownership on safety planning activities and response intentions to an armed and unarmed assailant by gender. *Violence and Gender*, 7(2), 57–65. <https://doi.org/10.1089/vio.2019.0044>
- Logan, T. (2021). Factors influencing safety efficacy: Examining past experience, mind-set, and emotion management. *Journal of Interpersonal Violence*, 36(11–12), 5011–5035. <https://doi.org/10.1177/0886260518802849>
- Logan, T. (2022). Examining factors associated with stalking-related fears among men and women stalked by male and female acquaintances. *Journal of Interpersonal Violence*, 37, NP6958–NP6987. <https://doi.org/10.1177/0886260520967755>
- Logan, T., & Cole, J. (2011). Exploring the intersection of partner stalking and sexual abuse. *Violence against Women*, 17(7), 904–924. <https://doi.org/10.1177/1077801211412715>
- Logan, T., & Cole, J. (2022). I felt as if my body wasn't mine anymore: Ex-partner stalking victims' overlapping experiences of sexual harassment and sexual assault. *Journal of Family Violence*. <https://doi.org/10.1007/s10896-022-00455-w>
- Logan, T., & Landhuis, J. (2022). Acquaintance stalking victim experiences of work interference, resource loss and help-seeking. *International Review of Victimology, Online First*. <https://doi.org/10.1177/02697580221125880>
- Logan, T., & Landhuis, J. (2023). Everyone saw me differently like it was my fault or i wanted it: Acquaintance stalking victim experiences of sexual assault and sexual harassment. *Journal of Interpersonal Violence*, 38, 8187–8210.
- Logan, T., & Langhinrichsen-Rohling, J. (2021). Intimate partner violence and intimate partner stalking. In R. Geffner, J. W. White, L. K. Hamberger, A. Rosenbaum, V. Vaughan-Eden, & V. I. Vieth (Eds.), *Handbook of interpersonal violence and abuse across the lifespan: A project of the national partnership to end interpersonal violence across the lifespan (npeiv)* (pp. 1–23). Springer International Publishing.
- Logan, T., & Lynch, K. R. (2022). Increased risks or peace of mind? Exploring fear, victimization, and safety strategies among women planning to get a gun. *Journal of Interpersonal Violence*, 37(19–20), NP18032–NP18059. <https://doi.org/10.1177/08862605211035865>
- Logan, T., & Showalter, K. (2022). Work harassment and resource loss among partner stalking victims. *Journal of Interpersonal Violence Advanced Online Copy*. <https://doi.org/10.1177/08862605221086649>
- Logan, T., & Walker, R. (2009a). Civil protective order outcomes: Violations and perceptions of effectiveness. *Journal of Interpersonal Violence*, 24(4), 675–692. <https://doi.org/10.1177/0886260508317186>
- Logan, T., & Walker, R. (2009b). Partner stalking: Psychological dominance or business as usual? *Trauma Violence & Abuse*, 10(3), 247–270. <https://doi.org/10.1177/1524838009334461>
- Logan, T., & Walker, R. (2010). Civil protective order effectiveness: Justice or just a piece of paper? *Violence and Victims*, 25(3), 332–348. <https://doi.org/10.1891/0886-6708.25.3.332>
- Logan, T., & Walker, R. (2017a). The gender safety gap: Examining the impact of victimization history, perceived risk, and personal control. *Journal of Interpersonal Violence*, 088626051772940. <https://doi.org/10.1177/0886260517729405>
- Logan, T., & Walker, R. (2017b). The impact of stalking victimization on separation: Assessing and addressing safety and economic security. *Domestic Violence Report*, 22(5), 69–74.
- Logan, T., & Walker, R. (2017c). Stalking: A multidimensional framework for assessment and safety planning. *Trauma Violence & Abuse*, 18(2), 200–222. <https://doi.org/10.1177/1524838015603210>
- Logan, T., & Walker, R. (2018a). Advocate safety planning training, feedback, and personal challenges. *Journal of Family Violence*, 33(3), 213–225. <https://doi.org/10.1007/s10896-017-9949-9>
- Logan, T., & Walker, R. (2018b). Looking into the day-to-day process of victim safety planning. *Journal of Family Violence*, 33(3), 197–211. <https://doi.org/10.1007/s10896-018-9951-x>
- Logan, T., & Walker, R. (2021a). The gender safety gap: Examining the impact of victimization history, perceived risk, and personal control. *Journal of Interpersonal Violence*, 36(1–2), 603–631. <https://doi.org/10.1177/0886260517729405>
- Logan, T., & Walker, R. (2021b). The impact of stalking-related fear and gender on personal safety outcomes. *Journal of Interpersonal Violence*, 36(13–14), NP7465–NP7487. <https://doi.org/10.1177/0886260519829280>
- Logan, T., Cole, J., Shannon, L., & Walker, R. (2006a). *Partner stalking: How women respond, cope, and survive*. New York: Springer Publishing Company.
- Logan, T., Walker, R., Jordan, C., & Leukefeld, C. (2006b). *Women and victimization: Contributing factors, interventions, and implications*. American Psychological Association.
- Logan, T., Shannon, L., Cole, J., & Swanberg, J. (2007). Partner stalking and implications for women's employment.

- Journal of Interpersonal Violence*, 22(3), 268–291. <https://doi.org/10.1177/0886260506295380>
- Logan, T., Lynch, K., & Walker, R. (2022). Exploring control, threats, violence and help-seeking among women held at gunpoint by abusive partners. *Journal of Family Violence*, 37, 59–73. <https://doi.org/10.1007/s10896-021-00284-3>
- Löw, A., Weymar, M., & Hamm, A. O. (2015). When threat is near, get out of here. *Psychological Science*, 26(11), 1706–1716. <https://doi.org/10.1177/0956797615597332>
- Maier, S. F., & Watkins, L. R. (2010). Role of the medial prefrontal cortex in coping and resilience. *Brain Research*, 1355, 52–60. <https://doi.org/10.1016/j.brainres.2010.08.039>
- Maier, S. F., Amat, J., Baratta, M. V., Paul, E., & Watkins, L. R. (2006). Behavioral control, the medial prefrontal cortex, and resilience. *Dialogues in Clinical Neuroscience*, 8(4), 397–406. <https://doi.org/10.31887/DCNS.2006.8.4/smaier>
- May, D. C., Rader, N. E., & Goodrum, S. (2010). A gendered assessment of the “threat of victimization”: Examining gender differences in fear of crime, perceived risk, avoidance, and defensive behaviors. *Criminal Justice Review*, 35(2), 159–182. <https://doi.org/10.1177/0734016809349166>
- McCaughey, M., & Cermele, J. (2017). Changing the hidden curriculum of campus rape prevention and education: Women’s self-defense as a key protective factor for a public health model of prevention. *Trauma Violence & Abuse*, 18(3), 287–302.
- McFarlane, J. M., Campbell, J. C., Wilt, S., Sachs, C. J., Ulrich, Y., & Xu, X. (1999). Stalking and intimate partner femicide. *Homicide Studies*, 3(4), 300–316. <https://doi.org/10.1177/1088767999003004003>
- McFarlane, J., Campbell, J. C., & Watson, K. (2002). Intimate partner stalking and femicide: Urgent implications for women’s safety. *Behavioral Sciences & the Law*, 20(1–2), 51–68. <https://doi.org/10.1002/bsl.477>
- Mertler, C., & Vannatta, R. (2005). *Advanced and multivariate statistical methods: Practical application and interpretation* (3rd ed.). Pyczak Publishing.
- Messing, J. T., O’Sullivan, C. S., Cavanaugh, C. E., Webster, D. W., & Campbell, J. (2017). Are abused women’s protective actions associated with reduced threats, stalking, and violence perpetrated by their male intimate partners? *Violence against Women*, 23(3), 263–286.
- Moscarello, J. M., & Ledoux, J. E. (2013). Active avoidance learning requires prefrontal suppression of amygdala-mediated defensive reactions. *Journal of Neuroscience*, 33(9), 3815–3823. <https://doi.org/10.1523/jneurosci.2596-12.2013>
- Nurius, P. S., Norris, J., Young, D. S., Graham, T. L., & Gaylord, J. (2000). Interpreting and defensively responding to threat: Examining appraisals and coping with acquaintance sexual aggression. *Violence and Victims*, 15(2), 187–208.
- Orchowski, L. M., Gidycz, C. A., & Raffle, H. (2008). Evaluation of a sexual assault risk reduction and self-defense program: A prospective analysis of a revised protocol. *Psychology of Women Quarterly*, 32(2), 204–218. <https://doi.org/10.1111/j.1471-6402.2008.00425.x>
- Palan, S., & Schitter, C. (2018). ProlificAc—a subject pool for online experiments. *Journal of Behavioral and Experimental Finance*, 17, 22–27. <https://doi.org/10.1016/j.jbef.2017.12.004>
- Pinciotti, C. M., & Orcutt, H. K. (2018). Rape aggression defense: Unique self-efficacy benefits for survivors of sexual trauma. *Violence against Women*, 24(5), 528–544.
- Price, M., Szafranski, D. D., van Stolk-Cooke, K., & Gros, D. F. (2016). Investigation of abbreviated 4 and 8 item versions of the ptsd checklist 5. *Psychiatry Research*, 239, 124–130. <https://doi.org/10.1016/j.psychres.2016.03.014>
- Ramsey, L. R., & Hoyt, T. (2015). The object of desire. *Psychology of Women Quarterly*, 39(2), 151–170. <https://doi.org/10.1177/0361684314544679>
- Rogers, R. W. (1975). A protection motivation theory of fear appeals and attitude change I. *The Journal of Psychology*, 91(1), 93–114.
- Sabri, B., Tharmarajah, S., Njie-Carr, V. P., Messing, J. T., Loerzel, E., Arscott, J., & Campbell, J. C. (2022). Safety planning with marginalized survivors of intimate partner violence: Challenges of conducting safety planning intervention research with marginalized women. *Trauma Violence & Abuse*, 23(5), 1728–1751.
- Sáez, G., Alonso-Ferres, M., Garrido-Macias, M., Valor-Segura, I., & Expósito, F. (2019). The detrimental effect of sexual objectification on targets’ and perpetrators’ sexual satisfaction: The mediating role of sexual coercion. *Frontiers in Psychology*, 10. <https://doi.org/10.3389/fpsyg.2019.02748>
- Sánchez-Fuentes, M. M., Santos-Iglesias, P., & Sierra, J. C. (2014). A systematic review of sexual satisfaction. *International Journal of Clinical and Health Psychology*, 14(1), 67–75. [https://doi.org/10.1016/S1697-2600\(14\)70038-9](https://doi.org/10.1016/S1697-2600(14)70038-9)
- Sanders, C. K. (2015). Economic abuse in the lives of women abused by an intimate partner. *Violence against Women*, 21(1), 3–29. <https://doi.org/10.1177/1077801214564167>
- Senn, C. Y., Eliasziw, M., Hobden, K. L., Newby-Clark, I. R., Barata, P. C., Radtke, H. L., & Thurston, W. E. (2017). Secondary and 2-year outcomes of a sexual assault resistance program for university women. *Psychology of Women Quarterly*, 41(2), 147–162. <https://doi.org/10.1177/0361684317690119>
- Senn, C. Y., Barata, P., Eliasziw, M., Hobden, K., Radtke, H. L., Thurston, W. E., & Newby-Clark, I. R. (2022). Sexual assault resistance education’s benefits for survivors of attempted and completed rape. *Women & Therapy*, 45(1), 47–73.
- Showalter, K., Maguire-Jack, K., Yang, M. Y., & Purtell, K. M. (2019). Work outcomes for mothers experiencing intimate partner violence: The buffering effect of child care subsidy. *Journal of Family Violence*, 34(4), 299–308. <https://doi.org/10.1007/s10896-018-0009-x>
- Sinko, L., & Saint Arnault, D. (2020). Finding the strength to heal: Understanding recovery after gender-based violence. *Violence against Women*, 26(12–13), 1616–1635. <https://doi.org/10.1177/1077801219885185>
- Sinko, L., James, R., & Hughesdon, K. (2021). Healing after gender-based violence: A qualitative metasynthesis using meta-ethnography. *Trauma Violence & Abuse*, 152483802199130. <https://doi.org/10.1177/1524838021991305>
- Smith, S., Chen, J., Basile, K., Gilbert, L., Merrick, M., Patel, N., & Jain, A. (2017). *The national intimate partner and sexual violence survey (nisvs): 2010–2012 state report*. Retrieved from Atlanta, GA: <https://www.cdc.gov/violenceprevention/pdf/nisvs-stater-reportbook.pdf>
- Smith, S., Basile, K., & Kresnow, M. (2022). *The national intimate partner and sexual violence survey: 2016/2017 report on stalking*. Retrieved from Atlanta GA: https://www.cdc.gov/violenceprevention/pdf/nisvs/NISVS-Stalking-Report_508.pdf
- Snihotta, F. F., Schwarzer, R., Scholz, U., & Schüz, B. (2005). Action planning and coping planning for long-term lifestyle change: Theory and assessment. *European Journal of Social Psychology*, 35(4), 565–576.
- Spitzer, R. L., Kroenke, K., Williams, J. B. W., & Löwe, B. (2006). A brief measure for assessing generalized anxiety disorder: The gad-7. *Archives of Internal Medicine*, 166(10), 1092–1097. <https://doi.org/10.1001/archinte.166.10.1092>
- Sullivan, C. M. (2011). Evaluating domestic violence support service programs: Waste of time, necessary evil, or opportunity for growth? *Aggression and Violent Behavior*, 16(4), 354–360.
- Turchik, J. A., Probst, D. R., Chau, M., Nigoff, A., & Gidycz, C. A. (2007). Factors predicting the type of tactics used to resist sexual

- assault: A prospective study of college women. *Journal of Consulting and Clinical Psychology*, 75(4), 605–614. <https://doi.org/10.1037/0022-006X.75.4.605>
- van Berlo, W., & Ensink, B. (2000). Problems with sexuality after sexual assault. *Annual Review of Sex Research*, 11(1), 235–257. <https://doi.org/10.1080/10532528.2000.10559789>
- Varum, C. A., & Melo, C. (2010a). Directions in scenario planning literature—a review of the past decades. *Futures*, 42(4), 355–369.
- Varum, C. A., & Melo, C. (2010b). Directions in scenario planning literature – a review of the past decades. *Futures*, 42(4), 355–369. <https://doi.org/10.1016/j.futures.2009.11.021>
- Vitek, K. N., & Yeater, E. A. (2021). The association between a history of sexual violence and romantic relationship functioning: A systematic review. *Trauma Violence & Abuse*, 22(5), 1221–1232. <https://doi.org/10.1177/1524838020915615>
- Walker, W. E., Haasnoot, M., & Kwakkel, J. H. (2013). Adapt or perish: A review of planning approaches for adaptation under deep uncertainty. *Sustainability*, 5(3), 955–979.
- Wirtz, C. M., Hofmann, S. G., Riper, H., & Berking, M. (2014). Emotion regulation predicts anxiety over a five-year interval: A cross-lagged panel analysis. *Depression and Anxiety*, 31(1), 87–95.
- Wood, S. N., Glass, N., & Decker, M. R. (2021). An integrative review of safety strategies for women experiencing intimate partner violence in low-and middle-income countries. *Trauma Violence & Abuse*, 22(1), 68–82.

Publisher's Note Springer Nature remains neutral with regard to jurisdictional claims in published maps and institutional affiliations.

Springer Nature or its licensor (e.g. a society or other partner) holds exclusive rights to this article under a publishing agreement with the author(s) or other rightsholder(s); author self-archiving of the accepted manuscript version of this article is solely governed by the terms of such publishing agreement and applicable law.