

Vulnerability in the neighborhood: A study of perceived control over victimization

Keywords

perceived control over victimization; perceived vulnerability; fear of crime; neighborhood effects; gendered neighborhood dynamics

Introduction

A personal sense of control is a constituent part of one's subjective sense of vulnerability to victimization (Jackson, 2011). If vulnerability is broadly defined as one's openness and/or exposure to harm (Hale, 1996; Warr, 1984; Killias, 1990), perceived control refers to an individual's belief that they can resist crime physically, avoid crime situationally, and/or draw on social protective mechanisms to prevent or reduce the likelihood and consequences of crime victimization. On the one hand, people who feel lower control over the chances and consequences of victimization feel that their exposure to potential harm from criminal victimization is high. On the other hand, those who believe that they can control their exposure to victimization feel less at risk of harm.

There is mounting evidence that women report lower perceived control over criminal victimization than men (Killias, 1990; Jackson, 2009). *Gendered vulnerability* can be approached as a psychological construct that is partly a function of women's subordinate social, economic and political status, and their experience of harassment and violence in the public realm (Stanko, 1990; Pain, 2001; Fileborn, 2019). Women's lives may be influenced by structural inequalities and collective experiences that manifest in private and public spaces (Fileborn, 2019; Pain, 2001, 2000, 1997; Stanko, 1995). In public spaces, women's perceived control over their victimization is tied to assessments of danger that are linked to the conditions of the environment and the behaviors of others in that environment (Tulloch & Jennett, 2001; Cobbina, Miller, & Brunson, 2008). Women's worry and fear in public space are associated with a retreat into the domestic sphere (Stanko, 1990, 1995), which can be a 'risky' place for women (Beyer, Wallis & Hamberger, 2015; Cussen & Bryant, 2015; Stanko, 1990).

While it is well established in criminological scholarship that women report higher levels of worry and fear about victimization in the public realm compared to men, less attention has been paid to the dynamics of vulnerability as a precursor to gendered fear in these spaces (Franklin & Franklin, 2009; Fisher & May, 2009; Snedker, 2015). Certainly, unequal and gendered power relationships shape women's micro-perceptions of control over their victimization (Stanko, 1997; Walklate, 2017) but these relationships may also exist at larger units of scale. Simone de Beauvoir's (1949) historical account of women's position in society concluded that the key to female empowerment was women's economic independence. Blumberg (1984) expands on de Beauvoir's idea. While de Beauvoir looks primarily at individual experience, Blumberg looks at how women's experiences are shaped not only by their own economic power, but also by the economic power of other women in their community. Studies have demonstrated that the ecological context is important for perceptions of crime and that the features of the neighborhood have distinct effects for women and men (Brunton-Smith & Sturgis, 2011; Brunton-Smith, Jackson, & Sutherland, 2014). Whether collective processes and neighborhood features are gendered and, further, if they lead to women's reports of greater or lesser control over their victimization is a key objective of the current study.

Integrating cross-sectional survey data from the XXXX project with census and crime data, we examine neighborhood conditions and their links to women's and men's sense of control over their victimization of neighborhood crime. We focus on the general neighborhood processes and the gendered neighborhood dynamics that may be linked to control over one's victimization for neighborhood crimes. We propose that women's access to socioeconomic recourses and gendered neighborhood violence generate conditions that are important for understanding women's versus men's differences in perceptions of control. We assess if and how individual perceptions of control over their victimization are related to neighborhood dynamics. We conclude with a discussion of the implications of our findings to scholarship on vulnerability and neighborhoods.

Vulnerability and perceived controllability of victimization

In the criminological literature, higher levels of fear of crime among women is largely been understood through the lens of vulnerability (Hale, 1996; Jackson, 2004, 2009, 2011; Killias, 1990; Warr, 1984, 1987). Killias' (1990) *vulnerability thesis* proposes that women's heightened worry is due to their increased vulnerability to physical, social and situational risks. Thus, when one's risk of crime is high and ability to protect oneself is low, there is an increased anticipation of serious consequences from victimization, which then triggers worry and/or fear. Early criminological works (Warr, 1984, 1987; Killias, 1990) were

foundational to the theorization and conceptualization of gender differences in fear of crime studies, viewing women as less able to physically protect themselves from particular types of criminal behavior than men, making them more vulnerable to victimization (Killias & Clerici, 2000; Killias, 1990). However, in the following two decades of scholarship, being female became a proxy variable for being vulnerable – drawing considerable criticism from scholars (Stanko, 1997; Lee, 2007; Walklate, 2017).

A psychological model of vulnerability (Jackson, 2009, 2011; Jackson & Gouseti, 2016) shifts attention away from group-level markers of higher risk of harm to subjective individual-level perceptions of vulnerability. Three factors define an individual's perceived vulnerability to victimization: perceived heightened likelihood of victimization, perceived lessened control over victimization, and an intensified sense of the consequences of victimization. Jackson (2009) found that women worried more frequently about personal crimes in public space than men, and that this was largely explained by perceptions of lower control over their victimization and higher perceptions of likelihood and consequence. A perceived ability to physically defend oneself was strongly correlated with perceived control over victimization for women and men. In a study of 1800 participants, Jackson (2009) found that lower perceived control over victimization was only a predictor of heightened worry among women, suggesting that this particular aspect of subjective vulnerability is gendered.

Control over potential victimization can be framed as an individual's perception that they can either physically resist crime or avoid situations in which crime may occur (Jackson, 2006; 2009; Gabriel & Greve, 2003). Perceived control may also refer to one's ability to draw on protective mechanisms to prevent victimization (Killias, 1990; Fisher & Naser, 1992, 1995; Jackson, 2011) that can include a sense of power over one's environment, in part determined by one's social position (Jackson, 2011; Tulloch, 2003). For example, Tulloch (2003) found that both female and male participants who felt powerless to control their victimization lived in environments where the actions of others were viewed as "uncontrollable" (Tulloch 2003, p. 475). The combination of (a) powerlessness to prevent victimization and (b) the belief that one cannot protect themselves if they were to be victimized may lie at the heart of perceptions of lower control over victimization.

Until recently, women's reduced control over their victimization has been linked to their *inherent* vulnerability, understood through gendered stereotypes of physical strength and the threat of sexual violence in public spaces (Killias & Clerici, 2000; Killias, 1990). This perspective proposes that women's heightened risk and lowered control is a consequence of the shadow of sexual assault. The vulnerability thesis suggests that women's fear, risk and control is partly driven by a threat of rape and women's weakened physical ability to fight off an attacker (Ferraro, 1996). Yet, this assertion is not always supported by empirical research (Reid & Konrad, 2004; Hirtenlehner & Farrall, 2014; Riggs & Cook, 2015).¹ Studies find the prevalence of sexual assault and worry about sexual assault does not fully explain women's overall fear of crime and the influence of the shadow of sexual assault may be tied to different ecological contexts (Hirtenlehner & Farrall, 2014; Jacobsen, Miller & Bhardwaj, 2020). The inference here is that risks which are particular to women, such as sexual violence, are a manifestation of broader social inequalities between women and men and, further, the concentration of these inequalities vary across cities and communities (Beyer, Wallis & Hamberger, 2015; Cussen & Bryant, 2015; Stanko, 1990).

Stanko (1990) outlined long ago that the study of women's perceived control must encapsulate the lived dynamics that reinforce inequalities between women and men. Such lived dynamics are derived from cues in the environment and understandings of community life through which women can determine the predictability of residents' behavior (Fisher & May, 2009; May, 2001; Cobbina et al., 2008). This is reinforced by research that points to the connection between vulnerability, control and an environmental backcloth differentially experienced by women and men (Franklin & Franklin, 2009). While social inequalities between women and men are created at the macro social level, inequalities play out experientially in places where people live and work. For example, women's assessment of the environmental context is derived through gendered cues and perceptions that occur in neighborhoods (Snedker, 2015). Cobbina and

¹This is not to dismiss the sexual violence women experience. In fact, there may be a strong relationship between fear of domestic and family violence and fear of neighborhood crimes such as robbery and burglary. However, fear of sexual assault has previously been conceptualized as a single item "being raped or sexually assaulted" and has not captured the nature and extent of sexual violence women experience (Ferraro, 1996: 672). To unpack this relationship is not the focus of this article and is for future research to interrogate.

colleagues (2008) found that young women derive a sense of safety in public spaces through the expectations of young men's behavior in their community. In response to predatory male behaviors, such as public harassment, women may significantly alter their behavior to avoid risk in public places where such harassment occurs (Stanko, 1997; Cobbina et al., 2008; Fileborn, 2019). They may also take control of public space through boldly reclaiming the public realm through protests or other activities (Koskela, 1997). Women's sense of control over victimization may, therefore, be understood through differential environmental contexts which can engender or threaten one's sense of control over victimization.

The neighborhood context and perceptions of control over victimization

Scholarship shows that individual perceptions of crime and feelings of fear and/or safety vary significantly across neighborhoods (Brunton-Smith & Sturgis, 2011; Brunton-Smith et al., 2014; Pantazis, 2000; Sampson, Raudenbush, & Earls, 1997). The characteristics of an area, such as crime rates, concentrated poverty and disorderly places have been shown to predict individuals' reports of fear (Brunton-Smith & Sturgis, 2011; Brunton-Smith et al., 2014; Pantazis, 2000). Indeed, evidence suggests that the magnitude of this association differs for women and men (Brunton-Smith & Sturgis, 2011). For example, levels of worry about crime are higher for women living in neighborhoods with larger populations of young people and greater socioeconomic disadvantage when compared to men (Brunton-Smith & Sturgis, 2011).

Neighborhood collective efficacy, broadly defined as the ability of communities to work together to collectively solve problems, is also linked to lower fear of crime (Sampson et al., 1997; Brunton-Smith & Sturgis, 2011). Those who perceive their community as efficacious report lower levels of fear and/or worry than those who perceive their community as unable or unwilling to respond to crime (Brunton-Smith, et al., 2013). For women, the community's perceived capacity to prevent problems is particularly important in predicting low levels of fear (Brunton-Smith & Sturgis, 2011) and beliefs and worries about violence (Brunton-Smith, et al., 2013). Collectively efficacious communities may reduce fear through empowering residents, especially women, thereby increasing their perceived control over their victimization.

Additionally, gendered neighborhood dynamics could differentially influence women's and men's perception of control over their victimization. Women's sense of control over victimization may be linked to the gendered stratification of work and the sexual division of labor that occurs more broadly in society, but also manifests in neighborhood structures (Blumberg, 1984). Blumberg (1984) argues gendered stratification at the community level is explicitly tied to women having a greater general sense of control over their lives. Women tend to partake in higher levels of unpaid family labor which can result in female exclusion from the paid workforce (Baxter, Hewitt & Western, 2005). As a result, public places that are male dominated may exist in those communities where there is also a larger concentration of women who experience economical exclusion and are positioned in the home (Miller, 2008). Some suggest that the gendered stratification of work and sexual division of labor creates the conditions for stronger social ties among women (Greenbaum & Greenbaum, 1985). Although female social ties have the potential to create informal social control in neighborhoods and control crime, they are less effective in neighborhoods with high concentrations of female-headed households (Rountree & Warner, 1999). Further to this, the specter and spectrum of gendered violence shapes the everyday realities of women, which in turn could influence their perceived ability to control their own victimization (Jackson, 2016; Walklate, 2017). As victimization against women clusters within particular neighborhoods (Beyer et al., 2015; Wright, Pimchevsky & Xie, 2021), there are likely ecological cues of vulnerability that specifically shape women's perceived control over their victimization.

To date only one prior study has incorporated gendered neighborhood dynamics in the study of crime perceptions (Jackson, Soller, & Browning, 2017). Jackson and colleagues (2017) examined gender stratification of resources in the neighborhood. They argued women's neighborhood resources played 'an important role in shaping perceptions of social disorder because it contributes to contexts where women face a heightened risk of sexual harassment' (p.190). The authors found that the relationship between observed neighborhood disorder and perceived disorder for women were moderated in contexts where women had more equal access to resources when compared to men. Neighborhoods with greater socioeconomic equality between women and men had a protective effect on women's reports of neighborhood problems (Jackson, Soller, & Browning, 2017). Thus, the gendered dynamics of the neighborhood, in particular women's access to socioeconomic resources/power, may be particularly important for women's sense of control over victimization when compared to men.

Current research

Studies suggest that neighborhoods vary in rates of crime, disadvantage and levels of collective efficacy and this variability predicts the way people perceive crime and understand crime risk (Brunton-Smith & Sturgis,

2011; Brunton-Smith, et al., 2014; Pantazis, 2000). Furthermore, scholarship reveals that these neighborhood conditions differentially impact women and men (Brunton-Smith & Sturgis, 2011; Brunton-Smith, et al., 2014). It is anticipated that gendered neighborhood dynamics such as differential economic power for women, gendered neighborhood violence, and an over-reliance on women for family labor may be also linked to the ways in which women perceive their control over certain neighborhood crimes (Jackson, Soller, & Browning 2017; Jackson 2016; Soller & Jackson 2018). By way of contribution, we examine these general and gendered neighborhood conditions and their association with individual vulnerability for women and men. The study is driven by the following two questions:

RQ1: How are broader community processes (collective efficacy), general characteristics of the neighborhood (low-income concentration and neighborhood crime rates), and gendered neighborhood dynamics (women's relative full time employment, women's relative occupational status, women's relative income, female headed households in the neighborhood and gendered neighborhood violence) associated with perceptions of control over victimization?

RQ2: Do these neighborhood features explain the difference between women's and men's perceptions of control over their victimization?

This study draws upon survey data from the previously cited XXXX project (XXXX 2020). The XXXX examines the individual and neighborhood context of fear of crime and the activities individuals take in response to fear.

Data and analytical approach

The XXXX survey data comprises a random sample of 2,862 residents in Victoria, Australia living within 80 random neighborhoods (70 urban and 10 regional).² Metropolis Research was contracted to conduct face-to-face interviews with participants at randomly selected households within the research neighborhoods. Interviews lasted between 15 and 25 minutes each.

Survey data was integrated with Australian Bureau of Statistics (ABS) 2016 Census Data, and crime incident data supplied by the Crime Statistics Agency, Victoria (CSA). In line with previous neighborhood research, we use State Suburb Codes (SSC) to determine administrative boundaries from the 2016 Australian Statistical Geography Standard (ASGS). Regional sites were those determined inner regional by the 2016 ASGS and urban sites were those SCC's within the Greater Melbourne boundary. The population range for regional sites ranged from 630 to 7,929 per SSC and for urban sites ranged from 510 to 50,349 per SSC.

In Australia, state suburbs are used to refer to a feature that in the United States, like census tracts, would be referred to as a "neighborhood". Suburbs are similar to census tracts in the U.S. context, although in some cases, may be larger than census tracts as they are not determined by population. Throughout, we use the more familiar term "neighborhood".³ While relying on administrative boundaries is an imperfect measure of "community", it allows us to capture context of the neighborhood through both social processes and characteristics of place to understand how these intersect with individual residents' perceptions.

Australia is a typical OECD country that is similar to the United States, the United Kingdom and Canada in its legal structures, economic policies and systems of government. Victoria is the second largest state in Australia, with a population of over 6 million people (ABS, 2017a). The state is the most densely populated in the country, with the majority residents living in urban areas. Melbourne is the capital of Victoria and the second-largest city in Australia. Melbourne is comparable to other large cities in advanced western

² The neighborhoods were chosen using crime rate as the strata. Crime incident rates were calculated for the year of 2016. Levels of crime were grouped and the crime rate groupings are as follows: 1 = Low crime (1 or more standard deviation below the mean for that year); 2 = Average crime (within 1 standard deviation of the mean for that year); and 3 = High crime (1 or more standard deviations above the mean). To determine the required number of residents per neighborhood, we followed the sampling process from Australian Community Capacity Study (<https://accs.project.uq.edu.au/>) and Raudenbush & Sampson's (1999) approach to ecometrics.

³ In Victoria, the total number of neighborhoods as of the 2016 census was 2,931 with a residential population ranging from 0 to 50,479 per neighborhood. In the United States, the average size of the census tract is approximately 4,000 inhabitants with a minimum of around 1,200 residents and a maximum of 8,000 residents. In the Project for Human Development in Chicago Neighborhoods, the average size of the neighborhood cluster was 8,000. In later analyses of the PHDCN data, these neighborhood clusters were aggregated up to territorial communities with an average of 11,000 respondents. Sampson (2012) reports that the ecometric properties for these larger territorial communities were "virtually equivalent" (p. 443) to the neighborhood clusters.

countries. It is a monocentral city with a large river running through the middle. Melbourne has a population of over 4.4 million living in approximately 500 neighborhoods (ABS, 2017b).

Dependent variable

This study seeks to test the extent to which *perceived control over victimization* is related to the broader neighborhood context. As a key dynamic in the theorization of perceived vulnerability, we argue that perceived control over victimization may be of particular importance in understanding women's perceptions of risk and worry about crime (Jackson, 2009). Drawing on Jackson's (2009, 2011) research, we operationalize perceived control over victimization through three questions that are combined to form a scale. These questions ask participants to what extent they feel personally able to control whether or not they fall victim to home burglary, robbery or harassment in the next twelve months. All items were measured on a five-point Likert-type scale ranging from 1 = "not at all able" to 5 = "to a very great extent". Factor analyses revealed these items strongly loaded on one factor with factor loadings ranging from 0.87 to 0.94. These three items were averaged to create a reliable scale ($\alpha = 0.93$).

Independent variables

In line with neighborhood effects scholarship on perceptions of crime, we include three broad characteristics of the neighborhood that may predict perceived control over victimization: low-income concentration, neighborhood crime rate, and neighborhood collective efficacy. The correlations between neighborhood level variables are noted in Table 1⁴.

[insert Table 1]

Low-income concentration: To examine if an overall lack of economic resources at the neighborhood level predicted people's sense of control over their victimization, we constructed a measure of *low-income concentration* using total household income from the ABS 2016 census data. Using the ABS data, we identified a value for 30 percent of the median income for Victoria and then determined the percentage of households in each neighborhood with income below that value.

Neighborhood crime rate: We created a measure of overall crime in the neighborhood using incidents of crime reported to the police data from CSA. Using the population data from the ABS, we constructed an incident rate per 1,000 total persons in the population averaged over three-years for each neighborhood (2017 – 2019).

Neighborhood collective efficacy: This neighborhood level variable captures the extent to which a community is able and willing to act on behalf of the collective good to achieve shared goals, here with a focus on informal social control (Sampson, Raudenbush & Earls, 1997). The following six items were employed in the neighborhood survey to measure collective efficacy: "This is a close-knit neighborhood"; "People here are willing to help their neighbours"; "People in this neighborhood can be trusted"; "If any of the children or young people around here are causing trouble, local people will tell them off"; "If I sensed trouble while in this area, I could 'raise' attention from people who live here for help"; and "The people who live here can be relied upon to call the police if someone is acting suspiciously". All items were measured on a 5-point Likert scale (1 strongly disagree and 5 strongly agree). Factor loadings ranged between 0.62 and 0.78 and all items loaded on one factor. The items were average to form a reliable scale ($\alpha = 0.87$).

In order to create a neighborhood estimate of collective efficacy, we estimated fixed effects models that included indicator variables for all neighborhoods in the Victorian sample and individual characteristics that might systematically bias perceptions of collective efficacy in the neighborhood.⁵ We then used the estimated coefficients for each of the neighborhoods from these analyses as unbiased estimates of the amount of collective efficacy at the neighborhood level. This method is akin to that of Sampson, Raudenbush and Earls (1997) and Wickes and colleagues (2013).⁶

Gendered neighborhood dynamics: Using administrative data from the ABS 2016 census and the CSA we then constructed five separate variables to capture the gendered dynamics of the neighborhood. We identify those gendered neighborhood dynamics that may predict perceived control for women. These include

⁴ As a further test of multicollinearity, we also examined the Variance Inflation Factor (VIF). VIF values ranged from - 2.5 to 1, suggesting no concerns about collinearity.

⁵ These individual level demographics included age, marital status, dependent children, gender, language spoken at home, country of birth, educational attainment and residential mobility.

⁶ A previous study found similarities, whether constructing measures using a frequentist approach, as we do here in this article, or using a Bayesian approach (see Steenbeek & Hipp 2011, footnote 12 on page 846).

relative economic resources for women across neighborhood context (women's relative full time employment, women's relative occupational status, women's relative income), *differential distribution of family labor duties* between women and men (female headed households in the neighborhood) and *gendered neighborhood violence* (neighborhood domestic and family violence rates). We describe each of these in turn below.

Relative economic resources: Jackson and colleagues (2017) proposed that women's access to neighborhood socioeconomic resources relative to men's shape women's perceptions of control over victimization. To date, studies that have measured women's relative neighborhood resources have drawn on 1990 U.S. census data (Jackson, 2016; Jackson, Soller, & Browning, 2017; Soller & Jackson, 2018). In our attempt to replicate Jackson and colleagues' (2017) composite measure of women's relative access to resources using the same variables, the principal component factor analysis did not demonstrate reliable concentration effects for a neighborhood measure. This is likely due to the substantial shift in women's labor force participation and increase educational attainment in OCED nations over the last 26 years (Gehring & Klasen, 2017; Goldin & Mitchell, 2017). While women's economic power remains lower than men's, this shift may influence the nature of women's economic empowerment at the neighborhood level. We argue that women's lower economic power is in part due to the large proportion of women who are underemployed, the lower proportion of women in senior positions in the workplace and the enduring gender pay gap (Davidson et al. 2020; Gehring & Klasen, 2017; Goldin & Mitchell, 2017). Using 2016 census data, we captured relative economic resources for women using three single neighborhood measures⁷; *women's relative full time employment* (the percentage of the full time employed population that are women), *women's relative occupational status* (the percentage of professional and managerial workers who are women) and *women's relative income* (the percentage of women who are high income earners)⁸. In the analyses, higher scores indicate neighborhoods with higher concentration of women with relative to economic resources compared to men.

Differential distribution of family labor duties: To capture potential gender differences in family labor, we constructed a measure of *female headed households in the neighborhood*. We again used the ABS census data create a single variable representing the percentage of single parent households that are led by women. Previous scholarship has shown that while female social ties may provide protection against crime, there are significant constraints on female headed households which influence their ability to respond to crime problems (Rountree & Warner, 1999). Female-headed households tend to cluster in particular neighborhoods and represent households with a disproportionate level of reliance on women for domestic labor (Wikström & Wikström, 2001). When women partake in higher levels of unpaid family labor this can result in female exclusion from the paid workforce and has the potential to reinforce male dominated public spaces (Baxter, Hewitt & Western, 2005). Higher scores on this variable indicate greater concentration of female headed households.

Gendered neighborhood violence: Past research has shown neighborhood crime rates have a direct relationship with fear (Brunton-Smith & Sturgis 2011; Barton, et al., 2017). Women's experiences of violence and crime have not been thoroughly captured through official crime data (Walby, Towers & Francis, 2016; Cooper & Obolenskaya, 2021). In this paper we draw on neighborhood rates domestic and family violence to capture gendered neighborhood violence. Drawing on domestic and family violence as our measure of gendered violence allows a capacious framework that considers all familial violence as gendered (Walklate et al., 2017). The Australian National Action Plan to End Violence Against Women and Children and the Family Violence Protection Act (VIC) also frames domestic and family violence in this way. Thus, this is the only way gendered violence is reliably measured at the neighborhood level in Victoria where this research is focused. To create a measure of neighborhood domestic and family violence rates, we employed domestic and family violence incident data from CSA. Using ABS census data, we then constructed an incident rate per 1,000 total persons in the population averaged over three-years for each neighborhood (2017 – 2019).

Control variables

Guided by social disorganization theory and neighborhood effects scholarship, we also employ a number of neighborhood-level control variables in our analyses. Data from the ABS 2016 census were employed to construct measures of neighborhood diversity and residential mobility. A Blau index captures linguistic

⁷ These three items did not create a reliable scale, however we believe they more accurately capture the conditions of women's economic disadvantage relative to men's in a contemporary setting.

⁸ High income earners are defined by the Australian government 2016 'High income threshold'.

diversity in order to capture neighborhood *linguistic heterogeneity*, in line with previous studies of this nature within Australia (Wickes, et al., 2013; Blau, 1977). The Blau index indicates the probability of two randomly selected residents from the same neighborhood speak a different language, the lower the number, the more homogeneous the area. Second, *residential mobility* is measured using percentage of people in the neighborhood who have lived at the same address for the last five years.

As individual demographics and life experiences have an impact on vulnerability and fear of crime, we control for a number of key demographics that may be important for perceived control over victimization (Brunton-Smith & Sturgis, 2011; Jackson, Soller, & Browning 2017; Jackson, 2004, 2009, 2011; Pain, 2001; Killias, 1990). *Age* represented the age of the participant at the time of the survey and was recoded into six categories (see Table 2). *Gender* is a binary variable with males coded as (0) and females as (1).⁹ *Language spoken at home* was also a binary variable with those who speak English coded as (0) and those who speak a language other than English coded as (1). Similarly, *marital status* was coded as partner (0) and not partnered (1). There were three categories of *educational attainment*: ‘high school or below’ (1); ‘trade, technical certificate or diploma’ (2); ‘university qualification’ (3). *Employment* was coded as: ‘employed full time’ (1); ‘employed part time’(2); ‘pensions/unemployed’ (3) and ‘not in the labor force’(4).¹⁰ *Locality* consists of the categories ‘urban Victoria’ (0) and ‘regional Victoria’ (1). *Victimization in the last 12 months* was binary with ‘not a victim of crime in the past 12 months’ coded as (0) and ‘a victim of crime in the last 12 months’ coded as (1)¹¹. For summary statistics refer to Table 2.

[insert Table 2]

Analysis

To address our two research questions, we ran a series of multilevel mixed effects regression models in Stata 17, examining the relationship between the individual-level perceptions of control over victimization and the neighborhood-level measures. Initially we estimated two main effects multilevel models, each of which built upon each other, to examine the theorized neighborhood features that influence control over victimization. Model 1 examined the associations that individual-level controls, neighborhood-level controls, and general neighborhood features played in predicting perceived control. The gendered neighborhood variables were then added to examine the extent to which perceived control over victimization was driven by gender specific processes in model 2.¹² In models 3 through 10, we ran a series of cross-level interaction models to examine whether our neighborhood independent variables (low-income concentration, overall neighborhood crime rate, collective efficacy, women’s relative full time employment, women’s relative occupational status, women’s relative income, female headed households in the neighborhood and neighborhood domestic and family violence rates) had differential statistical effects on perceived control over victimization for women and men. The predictive margins were then examined on the significant cross-level interactions. We describe the results of these models below.

Results

Before describing the results of the main-effects models, we examined the null model to examine if women perceived lower control over their victimization compared to men, and if the variation in perceived control over victimization was attributable to the neighborhood context. The null model shows a strong relationship between gender and perceived control over victimization ($\beta=-0.17$, $z=-4.45$, $p<.001$). Women perceive lower control over their victimization when compared to men. Further, the intra-class correlation revealed that 7% of the variation in perceived control over victimization is attributable to the neighborhood.

[Insert Table 3]

⁹ Gender indicates the gender with which participants identified at the time of the survey. It assigns gender based on the participant’s identification in response to the question “with which gender do you identify?” A woman is defined as anyone who identifies as such, operating on the principle that any individual who identifies as a female is a woman, thereby including cisgender women and transwomen. Furthermore, any individual who identifies as male is a man, thereby including cisgender men and transmen.

¹⁰ The latter category contains students.

¹¹ This was constructed as a binary variable from three dichotomous items: I have been burgled (broken into) in the last year and I have been robbed, harassed, or physically assaulted by another person in public in the past year.

¹² Concentrated low income disadvantage is not included in this model as it is too highly correlated with neighborhood domestic and family violence rates (0.665). Further, neighborhood overall crime rate is not included in this model as we included gendered neighborhood violence. In this model we differentiate between overall disadvantage and specific gendered dynamics.

Model 1 examined the effects of the individual-level and neighborhood-level control variables, and general neighborhood features on perceived control over victimization. Results from this model found the strongest demographic correlates of perceived control over one's victimization was gender. Females reported significantly lower perceived control over their victimization than their male counterparts ($\beta = -0.20$, $z = -4.75$, $p < .001$). Gender remained a significant predictor of perceived control across both main effects models. This aligns with previous research on vulnerability, specifically that women's heightened worry about crime is in part due to the perception that they have lower control over their victimization (Jackson, 2009). Interestingly, other demographic factors previously employed as proxies for vulnerability, such as age and language spoken at home, were not associated with individuals' perceived control. Yet, educational attainment was significantly associated with perceived control. Those with a university degree perceived higher control than those with a high school qualification ($\beta = 0.15$, $z = 2.84$, $p < .01$). Participants who lived in regional neighborhoods also perceived higher control over their victimization than those in urban neighborhoods ($\beta = 0.41$, $z = 3.08$, $p < .01$). Prior victimization did not have a significant relationship to perceived control. This is of particular interest as previous research finds that individuals' worry about crime and perceived risk of victimization is heightened for those with prior victimization experience in the last 12 months, however, these experiences were not associated with perceptions of control over victimization. Looking to the neighborhood level variables, neither neighborhood level linguistic heterogeneity nor residential mobility were correlated with perceived control over victimization. A higher concentration of low-income households in the neighborhood was significantly associated with lower control. Individuals living in neighborhoods with more households experiencing economic disadvantage perceived lower control over their victimization ($\beta = -0.01$, $z = -2.31$, $p < .05$). Surprisingly, neither neighborhood crime rates nor levels of collective efficacy were associated with an individual's perceived control over their victimization.

In model 2, we included the five variables that capture gendered neighborhood dynamics: women's relative full time employment, women's relative occupational status, women's relative income, female headed households in the neighborhood and neighborhood domestic and family violence rates. These had no effect on perceived control over victimization.

Models 3 through 10 examine if the neighborhood features explain the differences between women's and men's perceived control over victimization (see Tables 4-6). Scholars previously argued that the women perceive lower control over their victimization as they are more attuned to the neighborhood context (Snedker, 2015). However, no study to date has empirically tested which characteristics of the neighborhood differentially influence women's perceptions of control over their victimization. The analysis in model 3 did not show low-income concentration differentially influences women's and men's perceptions of control over their victimization.

[Insert Table 4]

Model 4 shows that increased neighborhood crime rates were significantly associated with the differences between women's and men's perceived control over victimization ($\beta = 0.000e-03$, $z = -2.23$, $p < .05$). As shown in Figure 1, women perceived lower control over their victimization when they lived in neighborhoods with high levels of crime. In contrast, men reported higher control over victimization in criminogenic neighborhoods (Figure 1).

[Insert Figure 1]

Model 5 did not reveal collective efficacy was associated with the differences between women's and men's perceptions of control over victimization. We then turned to examine the gendered neighborhood dynamics. Contrary to our expectations, the stratification of women's economic resources (models 6 - 8), female headed households in the neighborhood (model 9) and neighborhood domestic and family violence rates (model 10) did not explain differences in men and women's perceived control over their victimization (see Table 5 and 6).

[Insert Table 5 and 6]

Supplementary analysis

This study hypothesized eight neighborhood variables were associated with residents' perceptions of control over victimization. Further, it was anticipated these variables may account for the differences between women and men. In light of the limited applicability of the hypothesized neighborhood conditions to account for the neighborhood variability of perceived control over victimization, comprehensive sensitivity testing was completed to ensure the reliability of the findings. In supplementary analyses, alternative measures of neighborhood disadvantage (Socio-Economic Indexes for Areas (SEIFA)), neighborhood crime rates (neighborhood crimes against the person rates, neighborhood crimes against property rates, neighborhood

drug crimes rates) and gendered violence (women's victimization rates) were tested for both main effects and cross-level interactions. Full results of these models are reported in Appendix A.

The main effects models that employed alternative neighborhood measures did not yield significant relationships to perceived control over victimization (see Appendix A, Table A1 and Table A2). We then ran comprehensive sensitivity testing of the alternative neighborhood measures ability to explain the differences between women's and men's perceptions of control over victimization. The cross-level interactions did not find that alternative measures of disadvantage or gendered violence explained the differences between women's and men's perceived control over victimization.

In light of the association between neighborhood crime and the differences in perceptions of control over victimization for women and men, three additional measures of neighborhood crime were tested. This allowed us to better understand the types of crimes (crimes against the person, crimes against property and drug crimes) that were associated with the difference between women's and men's perceptions. We found that only concentration of property crime in the neighborhood explained the differences between women's and men's perceptions of control over victimization (see Appendix A, Table A3).

Discussion

This paper examined perceived vulnerability to crime, specifically the neighborhood dynamics that may predict differences in women's and men's reported perceptions of control over victimization, which in part captures a resident's ability to draw on social protective mechanisms to prevent or reduce crime victimization. In so doing, we considered how general and gendered neighborhood dynamics intersected with individual perceptions of control over victimization. We found that neighborhood disadvantage was important for understanding an individual's perceived control over victimization. In particular, perceived control was lower in low-income neighborhoods. Part of the explanation here may be that disadvantage magnifies mistrust in communities, which can leave residents feeling powerless and isolated (Ross, Mirowsky & Pribesh, 2001).

We anticipated that eight key neighborhood features (higher collective efficacy, less concentration of low-income, lower neighborhood crime rates, higher women's relative full-time employment, higher women's relative occupational status, higher women's relative income, lower proportion of female headed households in the neighborhood, and lower neighborhood domestic and family violence rates) would heighten women's perceived control over their victimization. Our findings did indicate that concentrations of neighborhood crime decreased women's perceived control over their victimization and increased men's perceived control over victimization. Miller (2008) argued that high crime neighborhoods create vulnerable neighborhood conditions for young women through gendered community norms, in which their communities were male dominated and instances of male violence were more common. In contrast, young men are raised through childhood and adolescence to express a fearless persona based on notions of normative masculinity (Goodey, 1997). Goodey's (1997) research revealed the negative implications for young men who did express fear, arguing that men who adhere to masculine identities are rewarded in their communities. Our results provide evidence that in neighborhoods with higher levels of crime risk men report more control over their victimization. This may be due to a desirability to adhere to masculine identities in line with patriarchal community expectations. By contrast, women perceive lower control over victimization when they live in communities with criminogenic conditions.

Our analyses did not reveal a relationship between gendered neighborhood dynamics and perceived control over victimization. While Jackson and colleagues (2017) demonstrated the importance of economic resources for perceptions of social disorder, our results do not support this for women's perceived control over victimization. It is plausible that the stratification of economic resources shapes gendered violence and incivilities (Jackson, Soller & Browning, 2017; Jackson, 2016), but these gendered dynamics do not influence perceived control over general neighborhood crimes, such as burglary and robbery.

There were other findings of note in this study. Of interest, women and men living in regional areas exhibited higher levels of perceived control over their victimization than those living in urban neighborhoods. Previous scholarship has largely focused on perceptions of safety and vulnerability in urban communities. Few studies have examined the difference between urban and regional perceptions of crime and worry about crime (Pleggenkuhle & Schafer, 2018). Pleggenkuhle and Schafer (2018) found social trust is important for fear in regional communities particularly for female participants. Regional communities have smaller populations and less residential mobility, which may create a unique set of attitudes and behaviors that engender perceptions of greater control compared to those living in urban areas. In contrast, Hogg and Carrington's (2003) examination of violence in regional communities revealed authors argue "bonds conceal, rather than reveal" critiquing the assumption strong community ties in regional areas leads to less violence (Hogg &

Carrington, 2003, p. 293). It may be plausible our findings indicate regional communities create contexts in which people are less likely to divulge their lower perceptions of control over victimization, or rather that the close-knit nature of such communities, might result in different conceptualizations of control.

Despite the advances made in this paper, there are limitations to note. Measures of control over sexual violence and domestic abuse were not captured in this survey. Indeed, no study to date has explicitly tested perceptions of control over sexual violence (Walby & Towers, 2017). Future research should consider the way in which perceptions and experiences of gendered violence are captured in broadscale surveys as they may be associated with distinctly gendered neighborhood dynamics. Further, official crime statistics are limited in capturing women's experiences of violence and self-report victimization surveys provide a more reliable picture of violence against women (Walby, Towers & Francis, 2016). Australia does not conduct a national victimization survey, however international studies have found women experience more violence than men when sexual violence and domestic violence are accounted for (Walby, et al. 2016; Cooper & Obolenskaya, 2021). Comprehensive victimization data is required to understand gendered neighborhood violence to refine and extend our results.

Overall, this paper provided the first empirical test of the neighborhood's associations with perceived control over victimization, and how the neighborhood may explain differences in women's and men's perceptions. We have extensively examined the general neighborhood characteristics, neighborhood social processes and gendered neighborhood dynamics that quantitative research has employed to understand women's fear of crime. The limited utility of these variables to explain gender differences in perceived control over victimization leads us to conclude that scholarship is not adequately capturing what matters for women's perceptions of vulnerability, particularly their perceptions of control over victimization.

Future research should more fully explore how communities and neighborhoods differentially influence women's and men's perceived vulnerability and fear of crime. For example, a more comprehensive account of men's behavior in public is needed to understand gendered neighborhood conditions that may be central to women's experiences in public spaces. Previous research on women's experiences in public have attributed heightened vulnerability to male dominated public places (Stanko, 1995). While it has been argued that women's perceptions of crime are largely understood through male predatory behavior and violence (Stanko, 1990; Koskela, 1997; Valentine, 1989; Fileborn, 2019), no quantitative study to date has captured the non-criminal behavior of men in public spaces, such as harassment, that may be central to women's perceptions of control over victimization in the neighborhood. Future work that examines vulnerability and fear must begin to capture ecological assessments of gendered incivilities that may be central to women's perceptions of vulnerability. Moreover, gendered mobility patterns and the built environment may also influence women's exposure to and experiences of different places (Valentine, 1989; Koskela & Pain, 2000). There have been significant advancements on the measurement of place and environmental cues, yet the fear of crime scholarship has not fully engaged with this literature to better understand why women and men differ in their perception of vulnerability and their worry about crime. The eco-networks literature emphasizes the importance of overlapping routines and land use types for impersonal encounters in public spaces for positive social processes (Browning et al., 2017; Wickes et al., 2019). It may be greater consideration of ecological networks and the built environment will reveal social processes that are important for gendered perceptions of control over victimization. Novel methodological approaches to measuring environmental conditions must be better utilized in the interrogation of perceived vulnerability, particularly the gendered nature of fear of crime. We think this is an important area for future research.

Conclusion

Women's perceived control over victimization is central to their perceived vulnerability and fear of crime (Jackson, 2009). Women derive their sense of control over victimization in part from the condition and features of environment in which they live (Snedker, 2015). This paper has examined the ecological drivers of perceived control over potential victimization highlighting the differential effects neighborhood crime rates had on women's and men's perceived control over their victimization. The variability in perceived control over victimization attributable to the neighborhood remains largely unexplained. It is essential for future studies on women's perceived vulnerability and fear to more comprehensively consider how place and community may drive this. These understandings of the neighborhood context for individual control over victimization are important when considering the dynamics that create and reinforces women's perceived vulnerability, and may drive their fear of crime.

References

- Australian Bureau of Statistics. (2017a July), *2011.0 - Census of Population and Housing: Reflecting Australia - Stories from the Census, 2016*. Australian Bureau of Statistics. Retrieved from <http://www.abs.gov.au>
- Australian Bureau of Statistics. (2017b October), *2016 Census Community Profiles – Greater Melbourne*. Australian Bureau of Statistics. Retrieved from <http://www.abs.gov.au>
- Barton, M., Frederick W., Melinda J., & Hickey, D. (2017). 'An Investigation of the Influence of the Spatial Distribution of Neighborhood Violent Crime on Fear of Crime.' *Crime & Delinquency*, 63 (13), 1757–76. <https://doi.org/10.1177/0011128716671874>.
- Baxter, J., Hewitt, B., & Western, M. (2005), 'Post-familial families and the domestic division of labour.' *Journal of Comparative Family Studies*, 36(4), 583-600.
- Beyer, K. M., Wallis, A. B., & Hamberger, L. K. (2015). 'Neighborhood environment and intimate partner violence: A systematic review.' *Trauma, Violence, and Abuse*, 16(1), 16–47.
- Blau, P. (1977), 'A Macrosociological Theory of Social Structure.' *American Journal of Sociology*, 83 (1), 26–54.
- Blumberg, R. (1984), 'A General Theory of Gender Stratification.' *Sociological Theory*, 2, 23- 101. <https://doi.org/10.2307/223343>.
- Brunton-Smith, I., & Sturgis, P. (2011), 'Do Neighborhoods Generate Fear of Crime? An Empirical Test Using British Crime Survey.' *Criminology*, 49 (2), 331–69. <https://doi.org/10.1111/j.1745-9125.2011.00228.x>.
- Brunton-Smith, I., Jackson, J., & Sutherland, A. (2013), 'Bridging Structure and Perception: On the Neighborhood Ecology of Beliefs and Worries About Violent Crime.' *British Journal of Criminology*, 54 (4), 503–26. <https://doi.org/10.1093/bjc/azu020>.
- Browning, C. R., Calder, C. A., Soller, B., Jackson, A., & Dirlam, J. (2017). 'Ecological Networks & Neighborhood Social Organization.' *American Journal of Sociology*, 122, 1939–1988.
- Cobbina, J., Miller, J. & Brunson, R. (2008), 'Gender, Neighborhood Danger, and Risk-avoidance Strategies Among Urban African-American Youths.' *Criminology*, 46 (3), 673–709. <https://doi.org/10.1111/j.1745-9125.2008.00122.x>.
- Cooper, K., & Obolenskaya, P. (2021) Hidden Victims: the gendered data gap of violent crime, *British Journal of Criminology*, <https://doi.org/10.1093/bjc/azaa100>
- Crittenden, C. A., & Wright, E. M. (2012). 'Predicting Patriarchy: Using Individual and Contextual Factors to Examine Patriarchal Endorsement in Communities.' *Journal of Interpersonal Violence*, 28(6), 1267–1288.
- Cussen, T., & Bryant, W. (2015). *Domestic/family homicide in Australia. Research in practice no. 38*. Canberra, Australia: Australian Institute of Criminology Retrieved from <https://aic.gov.au/publications/rip/rip38>
- De Beauvoir, S. (1949). *The Second Sex*, trans. and ed. HM Parshley ([1952].
- Davidson, P., Bradbury, B., Wong, M., & Hill, T. (2020) Inequality in Australia, Part 1: Overview, Sydney: Australian Council of Social Service and UNSW.
- Farrall, S., Jackson, J. & Gray, E. (2009), *Social Order and the Fear of Crime in Contemporary Times*. Oxford University Press. <https://doi.org/10.1093/acprof:oso/9780199540815.001.0001>.
- Ferraro, K. (1996), 'Women's Fear of Victimization: Shadow of Sexual Assault?' *Social Forces*, 75 (2), 667–90.
- Fileborn, B. (2019), 'Naming the Unspeakable Harm of Street Harassment: A Survey-Based Examination of Disclosure Practices.' *Violence Against Women*, 25(2), 223–248.
- Fisher, B. S., & Nasar, J. L. (1992), 'Fear of Crime in Relation to Three Exterior Site Features Prospect, Refuge and Escape.' *Environment and Behavior*, 24(1), 214–239.
- Fisher, B. S., & Nasar, J. L. (1995), 'Fear Spots in Relation to Microlevel Physical Cues: Exploring the Overlooked.' *Journal of Research in Crime and Delinquency*, 32(2), 214–239.
- Fisher, B., & May, D. (2009), 'College Students' Crime-Related Fears on Campus: Are Fear-Provoking Cues Gendered?' *Journal of Contemporary Criminal Justice*, 25 (3), 300–321. <https://doi.org/10.1177/1043986209335013>.
- Franklin, C., & Franklin, T. (2009), 'Predicting Fear of Crime: Considering Differences Across Gender.' *Feminist Criminology*, 4 (1), 83–106. <https://doi.org/10.1177/1557085108325196>.

- Gehring, A., & Klasen, S. (2017). 'Labor Force Participation of Women in the EU: What Role do Family Policies Play?' *Labour*, 31 (1), 15–42.
- Greenbaum, S.D., & Greenbaum, P.E. (1985), 'The Ecology of Social Networks in Four Urban Neighborhoods.' *Social networks*, 7(1), 47-76.
- Goldin, C., & Mitchell, J. (2017). 'The New Life Cycle of Women's Employment: Disappearing Humps, Sagging Middles, Expanding Tops.' *Journal of Economic Perspectives* 31 (1), 161–82.
- Goodey, J. (1997). 'Boys Don't Cry: Masculinities, Fear of Crime and Fearlessness.' *British Journal of Criminology*, 37(3/Summer), 401–418. <https://doi.org/10.1093/oxfordjournals.bjc.a014177>
- 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>.
- Hirtenlehner, H. & Farrall, S. (2014). 'Is the 'Shadow of Sexual Assault' Responsible for Women's Higher Fear of Burglary?' *British Journal of Criminology*, 54 (6), 1167–85. <https://doi.org/10.1093/bjc/azu054>.
- Hogg, R., & Carrington, K. (2003), 'Violence, Spatiality and Other Rurals.' *Australian & New Zealand Journal of Criminology*, 36(3), 293-319.
- Hunnicut, G. (2009). 'Varieties of Patriarchy and Violence against Women: Resurrecting "Patriarchy" as a Theoretical Tool.' *Violence Against Women*, 15, 553–573.
- Jackson, A. (2016), 'The Combined Effect of Women's Neighborhood Resources and Collective Efficacy on IPV: Women's Resources and Collective Efficacy on IPV.' *Journal of Marriage and Family*, 78 (4), 890–907. <https://doi.org/10.1111/jomf.12294>.
- Jackson, A., Soller, B., & Browning, C. (2017), 'The Influence of Women's Neighborhood Resources on Perceptions of Social Disorder.' *City and Community*, 16 (2), 189–208. <https://doi.org/10.1111/cico.12229>.
- Jackson, J. 2004. "Experience & Expression: Social & Cultural Significance in the Fear of Crime." *British Journal of Criminology* 44 (6): 946–66. <https://doi.org/10.1093/bjc/azh048>
- Jackson, J. (2009), 'A Psychological Perspective on Vulnerability in the Fear of Crime.' *Psychology, Crime and Law*, 15 (4), 365–90. <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), 513–37. <https://doi.org/10.1177/0022427810395146>.
- Jackson, J. & Gouseti, I. (2016). 'Threatened by Violence: Affective and Cognitive Reactions to Violent Victimization.' *Journal of Interpersonal Violence*, 31 (18), 2987–3016, doi: 10.1177/0886260515584336.
- Jacobsen, S. K., Miller, J. & Bhardwaj, N. (2020) 'Gender, Racial Threat, and Perceived Risk in an Urban University Setting.' *Journal of Research in Crime and Delinquency*, 57(5), 612–639. doi: 10.1177/0022427820902833.
- Kern, L. (2005), 'In place and at home in the city: Connecting privilege, safety and belonging for women in Toronto.' *Gender, Place and Culture*, 12(3), 357-377.
- Killias, M., & Clerici, C. (2000), 'Different Measures of Vulnerability in their Relation to Different Dimensions of Fear of Crime.' *British Journal of Criminology*, 40(3), 437-450.
- Killias, M. (1990), 'Vulnerability: Towards a Better Understanding of a Key Variable in the Genesis of Fear of Crime.' *Violence and Victims*, 5 (2), 97–108. <https://doi.org/10.1891/0886-6708.5.2.97>.
- Koskela, H. (1997), "'Bold Walk and Breakings': Women's Spatial Confidence versus Fear of Violence." *Gender, Place and Culture*, 4 (3), 301–20. <https://doi.org/10.1080/09663699725369>.
- Koskela, H. & Pain, R. (2000) 'Revisiting Fear and Place: Women's Fear of Attack and the Built Environment.' *Geoforum*, 31, 269-280.
- Lee, M. (2007) *Inventing Fear of Crime: Criminology and the politics of anxiety*, Willan, Collumpton.
- May, D. C. (2001), 'The Effect of Fear of Sexual Victimization on Adolescent Fear of Crime.' *Sociological Spectrum*, 21 (2), 141–74. <https://doi.org/10.1080/02732170119080>.
- Miller, J. (2008), *Getting Played*. New York: New York University Press.
- Pain, R. (1997), 'Whither Women's Fear? Perceptions of Sexual Violence in Public and Private Space.' *International Review of Victimology*, 4 (4), 297–312. <https://doi.org/10.1177/026975809700400404>.
- Pain, R. (2000), 'Place, Social Relations and the Fear of Crime: A Review.' *Progress in Human Geography*, 24 (3), 365–87. <https://doi.org/10.1191/030913200701540474>.
- Pain, R. (2001), 'Gender, Race, Age and Fear in the City.' *Urban Studies*, 38 (5–6), 899–913. <https://doi.org/10.1080/00420980120046590>.

- Pantazis, C. (2000), ‘Fear of Crime’, Vulnerability and Poverty.’ *British Journal of Criminology*, 40 (3), 414–36. <https://doi.org/10.1093/bjc/40.3.414>.
- Peitzmeier, S. M., Kagesten, A., Acharya, R., Cheng, Y., Delany-Moretlwe, S., Olumide, A., Blum, R. W., Sonenstein, F., & Decker, M. R. (2016). ‘Intimate Partner Violence Perpetration among Adolescent Males in Disadvantaged Neighborhoods Globally.’ *Journal of Adolescent Health*, 59(6), 696–702.
- Pleggenkuhle, B., & Schafer, J. (2018), ‘Fear of Crime among Residents of Rural Counties: An Analysis by Gender.’ *Journal of Crime and Justice*, 41 (4), 382–97. <https://doi.org/10.1080/0735648X.2017.1391109>.
- Raudenbush, S. & Sampson, R. (1999), ‘Ecometrics: Toward a Science of Assessing Ecological Settings, with Application to the Systematic Social Observation of Neighborhoods.’ *Sociological methodology*, 29(1), 1-41.
- Reid, L. & Konrad, M. (2004), ‘The Gender Gap in Fear: Assessing the Interactive Effects of Gender and Perceived Risk on Fear of Crime.’ *Sociological Spectrum*, 24 (4): 399–425. <https://doi.org/10.1080/02732170490431331>.
- Riggs, S, & Cook, C. (2015), ‘The Shadow of Physical Harm? Examining the Unique and Gendered Relationship Between Fear of Murder Versus Fear of Sexual Assault on Fear of Violent Crime.’ *Journal of Interpersonal Violence*, 30 (14), 2383–2409. <https://doi.org/10.1177/0886260514553117>.
- Rountree, P., & Warner, B. (1999), ‘Social Ties and Crime: Is the Relationship Gendered?.’ *Criminology*, 37 (4), 789–814. <https://doi.org/10.1111/j.1745-9125.1999.tb00505.x>.
- Ross, C. E., Mirowsky, J., & Pribesh, S. (2001). ‘Powerlessness and the Amplification of Threat: Neighborhood Disadvantage, Disorder, and Mistrust.’ *American Sociological Review*, 66(4), 568–591. <https://doi.org/10.2307/3088923>
- Sampson, R. J. (2012), *Great American City: Chicago and the enduring neighborhood effect*. Chicago: The University of Chicago Press.
- Sampson, R. J., Raudenbush, S., & Earls, F. (1997), ‘Neighborhoods and Violent Crime: A Multilevel Study of Collective Efficacy.’ *Science*, 277 (5328), 918–24. <https://doi.org/10.1126/science.277.5328.918>.
- Snedker, K. (2012), ‘Explaining the Gender Gap in Fear of Crime: Assessments of Risk and Vulnerability Among New York City Residents.’ *Feminist Criminology*, 7 (2), 75–111. <https://doi.org/10.1177/1557085111424405>.
- Snedker, K. (2015), ‘Neighborhood Conditions and Fear of Crime: A Reconsideration of Sex Differences.’ *Crime and Delinquency*, 61 (1), 45–70. <https://doi.org/10.1177/0011128710389587>.
- Soller, B., & Jackson, A. L. (2018), ‘Girls’ Self-Efficacy in the Context of Neighborhood Gender Stratification.’ *Social Science Research*, 72 (May), 100–114. <https://doi.org/10.1016/j.ssresearch.2018.01.005>.
- Stanko, E. (1995), ‘Women, Crime, and Fear.’ *The ANNALS of the American Academy of Political and Social Science*, 539 (1), 46–58. <https://doi.org/10.1177/0002716295539001004>.
- Stanko, E. (1997), ‘Safety Talk, Conceptualising Women’s Risk Assessment as a Technology of the Soul.’ *Theoretical Criminology*, 1 (4), 479–449.
- Steenbeek, W. & Hipp, J.R. (2011), ‘A Longitudinal Test of Social Disorganization Theory: Feedback Effects Among Cohesion, Social Control, and Disorder.’ *Criminology*, 49, 833-871. <https://doi.org/10.1111/j.1745-9125.2011.00241.x>
- Tulloch, M. (2003), ‘Combining Classificatory and Discursive Methods: Consistency and Variability in Responses to the Threat of Crime.’ *British Journal of Social Psychology*, 42 (3), 461–76. <https://doi.org/10.1348/014466603322438260>.
- Tulloch, M., & Jennett, C. (2001), ‘Women’s Responses to Fear of Crime.’ *Security Journal*, 14 (2), 53–62. <https://doi.org/10.1057/palgrave.sj.8340082>.
- Valentine, G. (1989) ‘The Geography of Women’s Fear.’, *Area*, 21 (4), 385-390.
- Walby, S., Towers, J. & Francis, B. (2016). ‘Is Violent Crime Increasing or Decreasing? a New Methodology to Measure Repeat Attacks Making Visible the Significance of Gender and Domestic Relations.’ *British Journal of Criminology*, 56(6), 1203–1234, <https://doi.org/10.1093/bjc/azv131>
- Walby, S., & Towers, J. (2017). ‘Measuring Violence to End Violence: Mainstreaming Gender.’ *Journal of Gender-Based Violence*, 1(1), 11-31.
- Walklate, S. (2017), ‘Gender, Violence and the Fear of Crime Women as Fearing Subjects?’ In M. Lee & G. Mythen *The Routledge International Handbook on Fear of Crime*, Routledge, 14–28.

- Walklate, S., McCulloch, J., Fitz-Gibbon, K., & Maher, J. (2019). 'Criminology, Gender and Security in the Australian Context: Making Women's Lives Matter.' *Theoretical Criminology*, 23(1), 60–77. <https://doi.org/10.1177/1362480617719449>
- Warr, M. (1984), 'Fear of Victimization: Why Are Women and the Elderly More Afraid?' *Social Science Quarterly*, 65 (3), 23.
- Warr, M. (1987), 'Fear of Victimization and Sensitivity to Risk.' *Journal of Quantitative Criminology*, 3 (1), 29–46. <https://doi.org/10.1007/BF01065199>.
- Wickes, R., Broidy, L., and Hipp, J. R. (2018). 'Responding to Neighborhood Problems: Is the Division of Community Labor Gendered?' *Crime and Delinquency*, 64 (9), 1215–41. <https://doi.org/10.1177/0011128717750390>.
- Wickes, R., Hipp, J., Zahnow, R. and Mazerolle, L. (2013). "'Seeing' Minorities and Perceptions of Disorder: Explicating the Mediating and Moderating Mechanisms of Social Cohesion: Minorities and Perceptions of Disorder.' *Criminology*, 51 (3), 519–60. <https://doi.org/10.1111/1745-9125.12011>.
- Wickes, R., Zahnow, R., Corcoran, J., & Hipp, J. R. (2019). 'Neighbourhood Social Conduits and Resident Social Cohesion.' *Urban Studies*, 56(1), 226-248.
- Wikström, S, and Wikström, P. (2001), 'Why Are Single Parents More Often Threatened with Violence? A Question of Ecological Vulnerability?' *International Review of Victimology*, 8 (2), 183–98. <https://doi.org/10.1177/026975800100800205>.
- Wright, E. M., Pinchevsky, G. M. and Xie, M. (2021) 'Neighborhoods and Intimate Partner Violence: A Decade in Review.' *Feminist Criminology*, 16(3), 337–350. doi: 10.1177/1557085120987632.