EPPS 6302: Methods of Data Collection and Production

Final Paper

Gender Differences in Fear of Crime: Analyzing the Impact of Various Levels of Factors in South Korea

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Introduction

Gender differences in fear of crime have long been a topic of interest for researchers, as these differences can significantly impact individuals' lives and society (Hale 1996; Warr 1987; Warr 2000). On an individual level, fear of crime can lead to mental health issues such as anxiety, depression, and interpersonal mistrust, ultimately diminishing overall quality of life (Warr 1987). On a societal level, fear of crime can weaken social cohesion, foster mistrust among people, and reinforce biases or stigmatization against specific groups (Hale 1996; Warr 2000). Moreover, fear of crime influences public policy and the allocation of social resources, playing a crucial role in developing protective measures and crime prevention strategies, particularly for vulnerable groups such as women (Ferraro 1995; Stanko 1990). Therefore, investigating the factors contributing to gender differences in fear of crime is essential.

Meanwhile, scholars have paid considerable attention to the factors predicting fear of crime. Existing research has identified various levels of factors that affect individuals' fear of crime. For example, individual characteristics such as age, race, and gender (e.g., Callanan and Rosenberger 2015; LaGrange and Ferraro 1989; Warr 1984), as well as higher-level factors such as neighborhood or city characteristics, have been shown to influence fear of crime (e.g., Barton et al. 2017; Franklin, Franklin, and Fearn 2008; Johansson and Haandrikman 2023; Scarborough et al. 2010). However, most of the existing studies have focused on explaining fear of crime using these various levels of factors, rather than predicting gender differences in fear of crime. While some studies have examined gender differences using various levels of variables, they either included gender as a control (e.g., Scarborough et al. 2010; Alper and Chappell 2012; Gainey, Alper, and Chappell 2011; Bolger and Bolger 2019) or analyzed it through interactions (e.g., Snedker 2015). Also, although some studies have directly compared gender differences in

fear of crime, they focused primarily on individual-level variables (Callanan and Rosenberger 2015), and others have analyzed gender differences using multi-level factors but within urban contexts only (Johansson and Haandrikman 2023).

Therefore, our study aims to predict gender differences in fear of crime using various levels of variables, including individual characteristics, perceived neighborhood disorder, and city characteristics, based on a South Korean public opinion sample (N = 1,000). Specifically, we intend to directly compare the gender differences in fear of crime by analyzing separate subsamples for men and women. Ultimately, the purpose of this study is to examine whether there are gender differences in how these variables predict fear of crime. We expect that the findings of this study will contribute to the development of more refined protective measures and crime prevention strategies by policymakers based on gender differences in fear of crime.

Literature Review

Gender differences in fear of crime

One of the most studied predictors of fear of crime is gender, with research consistently showing that women are more fearful of crime than men (Ferraro 1995; Hale 1996; Schafer et al. 2006; Fox et al. 2009; Snedker 2012; Lawton and Clark 2015; Bolger and Bolger 2019; Chataway and Hart 2019; Lee et al. 2020). As such, several empirically based explanations have been put forth to explain why gender differences in fear of crime exist. One explanation for this is related to differential socialization (Lane 2012; Snedker 2012; Lawton and Clark 2015). Feminist criminologists argue that men's and women’s reaction to fear of crime and potential victimization is socially constructed and tend to begin in childhood (Callanan and Teasdale 2009; Goodey 1997). From this perspective, boys and girls are socialized to have different levels of fear in general, including fear of crime. Early on, boys learn to internalize fear “in order to retain

some semblance of control and power in relation to others" (Goodey 1997, p. 410), hence they are socialized to be strong and powerful (Lane 2012; Lawton and Clark 2015). Girls, on the other hand, are socialized to be fragile and submissive, to express fear, and to assess their ability to handle crime (Goodey 1997; Hollander 2001; Snedker 2012). Men and women, therefore, are thought to be socialized in different ways that may influence fear of crime (Snedker 2012; Fetchenhauer and Buunk 2005).

Another explanation relates to one's perception of vulnerability or their perceived "openness to attack, powerlessness to resist attack, and exposure to traumatic physical and emotional consequences if attacked" (Skogan and Maxfield 1981, p. 69). Individuals tend to assess levels of vulnerability in light of their perception as a target of specific types of crime, therefore fear of crime will be high for those how perceive a greater risk or threat of victimization (Snedker 2012). Different dimensions of perceived vulnerability are key to understanding fear of crime and variations by gender (Snedker 2012). For example, research suggests that perceived physical vulnerability is associated with greater fear of crime (Franklin and Franklin 2009; Lane and Fox 2012; Henson and Reyns 2015). From this perspective, women are more likely to fear crime due to their smaller, physical stature, and the perception that they are less able to physically defend themselves against victimization (Chataway and Hart 2019; Lane 2012; Hillinski et al. 2011; Skogan and Maxfield 1981; Smith et al. 2001). Gendered differences in fear of crime have also been attributed to perceived economic and social vulnerabilities, e.g. income, education, and neighborhood characteristics (Killias 1990; Smith and Torstensson 1997; Carcach and Mukherjee 1999; Pantazis 2000; Callanan and Teasdale 2009; Snedker 2012; Carter and Wolfe 2021). Studies, therefore, tend to support the 'vulnerability hypothesis' suggesting that gender differences in fear of crime can be best

understood through the lens of individual assessments and perceptions of vulnerability (Snedker 2012; Fetchenhauer and Buunk 2005)

Scholars have also suggested that gender differences in fear of crime is driven largely by women's fear of rape and sexual victimization (Ferraro 1995; Fisher and Sloan 2003; Meyer and Post 2006). This concept is often referred to as the 'shadow thesis', where Ferraro (1995) argued that women are more afraid of crime than men because they are particularly afraid of sexual assault and the physical and emotional consequences that follow. Scholars have gone as far as suggesting that for women, fear of sexual assault may serve as the 'master offense' that influences their overall fear of crime and victimization (Ferraro 1995). This may be due to the fact that women are more likely to be victims of sex crimes resulting in a greater fear than their male counterparts (Stanko 1990). In an earlier longitudinal study, Lawton and Clark (2015) found that although women's fear of crime had declined dramatically since 1973, women's fear of crime was highly correlated with changes in the societal rate of rape crimes. More recently, Lane and Fox (2012) found that fear of sexual assault was a significant predictor of fear of several different types of crimes such as property, violent and gang crime, among a sample of female prisoners. The shadow thesis has received a lot of attention and support in literature particularly as a theoretical explanation for gender differences in fear of crime (Ferraro 1995; Lane and Meeker 2003; Lane and Fox 2012).

Predictors of Fear of Crime

A considerable amount of research has examined the effects of various factors on fear of crime. The most common predictors often relate to individual demographics and neighborhood-level factors such as physical and social disorder (McCrea et al. 2005; Reese 2009; Choe et al. 2021; Bolger and Bolger 2019).

Individual-level factors such as age, race/ethnicity, educational attainment, and socioeconomic status have been examined to explain fear of crime often producing mixed and conflicting results. Research tends to show that people of color express a greater fear of crime than Whites (Rader 2017; Lane 2014; Gainey, Alper, and Chappell 2011; Schafer et al. 2006; Warr 1984; Ferraro 1995). The primary reason for a greater fear among minorities is because many, especially African Americans, are more likely to live in areas where crime is more prevalent and more likely to be offenders and victims of crime (Lane 2014). However, recent studies have found opposing results suggesting that Whites are more afraid of crime than nonwhites due to media or other sources suggesting that White people are more likely to be victims of crime (Gainey, Alper, and Chappell 2011; Alper and Chappell 2012; Bolger and Bolger 2019).

Scholars also suggest that younger and married individuals as well as those who are highly educated are less fearful of crime than older people, single-person households and individuals with less education (Warr 1984; Schafer et al. 2006; Park and Lee 2010; Callanan and Rosenberger 2015; Rollwagen 2016; Rader 2017). It is thought that older people, although less likely to be victims of crime, may feel more vulnerable to crime due to their health and changes in physical condition (Rader 2017). The research is again conflicted with some studies concluding that age and fear are negatively correlated (Scheider et al. 2003; DeLone 2008).

Regarding socioeconomic status or income level, a small body of literature exists showing that poorer individuals are more likely to fear crime than those in higher-income and social class groups (Pantazis 2000; McGarrell et al. 1997; Roh and Cho 2014). Scholars suggest that this difference in fear is based on the various physical and social vulnerabilities faced by

poorer people, that those living in neighborhoods where crime is more likely produces greater susceptibility to victimization (Rader 2017; Pantazis 2000).

Individual victimization is yet another predictor suggesting that one's victimization experiences increase their fear of crime (Ferguson and Mindel. 2007; Brunton-Smith and Sturgis 2011; Gainey et al. 2011; Alper and Chapell 2012; Callanan and Rosenberger 2015; Zhao et al. 2015). Recent studies have also emphasized the role of vicarious or indirect victimization, suggesting a strong association with fear of crime (Schafer et al. 2006). In other words, those who know, hear about or observe someone who has been the victim of a crime may be more likely to be afraid of crime (Akers et al. 1987; Chiricos et al. 2000; Eschholz et al. 2003).

Neighborhood-level factors, specifically physical disorder and social disorder have been studied at length and tend to show consistent positive associations with fear of crime (Bolger and Bolger 2019; Jung 2024; McGarrell et al. 1997; Oh 2019; Park and Lee 2010). Physical disorder refers to the way in which a neighborhood appears such as, the presence of abandoned buildings, litter in the streets, overgrown properties, and rundown lots. Social disorder refers to the actions and interactions between residents and includes behaviors such as loitering, loud music, drug use, public intoxication, and uncontrolled parties (Bolger and Bolger 2019).

The role of city size and crime rates have also garnered attention in the fear of crime literature. For example, living in inner cities as opposed to the suburbs or rural areas may be related to higher levels of fear of crime (Camacho Doyle et al. 2021). LaGrange et al. (1992) found that people living in urban areas have a higher fear of crime, compared to those residing in rural areas. Others tend to validate these findings suggesting that urbanism is a strong predictor of fear of crime (Franklin et al. 2008; Camacho Doyle et al. 2021). Likewise, a positive association between crime rates and elevated levels of fear has also been found (Zhao et al. 2015;

Stein 2014; Gainey et al. 2011; Brunton-Smith and Sturgis 2011; Franklin et al. 2008; Wyant 2008; Camacho Doyle et al. 2021).

Fear of Crime in the South Korean Context

Research on fear of crime in South Korea has evolved significantly over the past two decades, revealing similarities with Western findings and unique characteristics of Korean society. Consistent with global trends, Korean studies have found that women report higher levels of fear of crime compared to men (e.g., Cho 2003; Noh and Shin 2021). This gender disparity is often attributed to women's perception of vulnerability and fear of sexual violence, although the extent of this difference varies depending on the type of crime (Chang et al. 2011). Socioeconomic factors also play a crucial role, with studies showing that women, older people, and low-income groups tend to exhibit higher levels of fear (Park and Lee 2010).

The relationship between urbanization and fear of crime in South Korea has produced mixed results. While some studies found higher fear levels in rural areas (Hwang 2009; Park and Lee 2010), others reported greater fear in metropolitan areas (Min 2011), suggesting a complex interplay of factors such as social cohesion and local crime rates (Roh and Cho 2014). Neighborhood conditions have been a significant focus, with studies consistently finding positive correlations between physical and social disorder and increased fear of crime (Yim 2022; Park and Jang 2013).

Recent Korean research has focused on vulnerable demographics and the role of media in shaping fear of crime. Studies have found that single-person households, particularly women living alone, report significantly higher levels of fear compared to those in multi-person households, a trend attributed to perceived vulnerability and lack of immediate social support (Ha and Park 2020; Sim 2021). This vulnerability is further amplified by media influences. Cho

and Cho (2017) demonstrated that media exposure significantly increases fear of crime among women. These findings underscore the complex interplay between demographic factors, living arrangements, and media consumption in shaping perceptions of safety in contemporary Korean society.

Despite ample research addressing the direct and indirect effects of all individual, neighborhood-level, and city-level of predictors on fear of crime, few studies have examined how these various levels of predictors influence men and women's fear of crime differently or similarly. Although many of the studies noted tend to include gender in their analyses either as an independent or control variable (see Fetchenhauer and Buunk 2005; Bolger and Bolger 2019; Callanan and Rosenberger 2015; Gainey et al. 2011), few have attempted to disentangle the relationship between various levels of variables on fear of crime among the genders, specifically using a subsample of males and females. This study extends previous research by investigating how different levels of variables predict fear of crime differently for men and women.

Methods

Sample

To investigate gender differences in fear of crimes, we commissioned a survey with a South Korean professional survey company, "Hankook Research." The survey was conducted for academic purposes via mobile devices from October 21 to October 28, 2021, targeting adults aged 19 to 69. Using a quota sampling method based on the resident registration population data from September 2019, the sample was stratified by region, gender, and age. Informed consent was obtained from all participants, who were informed about the survey's academic purpose and the anonymity of their responses. Out of 1,408 panel members who participated, after excluding cases with missing data on key variables using listwise deletion, our final analytical sample consisted of 1,000 respondents (71.0% of the initial sample). Missing responses were randomly

scattered, likely due to survey fatigue or the randomness typical in online surveys (Egleston et al., 2011). Of the respondents, 51.1% were male, with an average age of 44.9 years. The average education level was at least a two-year college degree and household income ranged from approximately 4 million to 5 million KRW ($4,720 to $5,900). The sample demographics closely matched those of the South Korean population (KOSIS, 2024), and there were minimal differences in education levels and income between male and female respondents. Table 1 provides descriptive statistics for the variables included in the analysis.

Insert Table 1

Measures

Dependent Variable

Fear of Crime

The literature does not agree on the precise way to measure fear of crime. Fear of crime has been assessed in various ways, such as asking respondents if they are afraid to walk in their neighborhood or how worried they are about being victimized by specific types of crime (Hart et al. 2022). However, it is crucial to avoid using single indicators that can frequently lead to errors in measuring fear of crime and to distinguish fear of crime from perceived risk of crime (Eschholz et al. 2003; LaGrange and Ferraro 1989). Therefore, this study operationalized the dependent variable, 'fear of crime,' using respondents' answers to questions about five types of crime. The five items included burglary while at home, assault, harassment, vandalism, and theft (Brunton-Smith and Sturgis 2011; Callanan and Teasdale 2009). The original survey included a question about fear of sexual assault, but this item was excluded from the scale as it could disproportionately influence women's fear of crime compared to men's (Callanan and Teasdale 2009). Respondents were asked how worried they were about these five types of crime in the

past year on a 5-point Likert scale (1 = not at all worried, 5 = very worried). These responses were then combined into a mean index to measure overall levels of fear of crime (α = .837). Table 2 displays the differences in fear between males and females across five items.

Independent Variables

Individual Characteristics

In this study, various measures of individual characteristics that may influence fear of crime are considered, including each respondent's age (in years), education level (1 = no formal education, 6 = graduate degree), income level (1 = < US$1,180, 9 = US$11,800+), single person household (yes = 1, if the respondent lives alone), personal victimization (yes = 1, if the respondent has experienced personal victimization related to crimes in the past year), and vicarious victimization (yes = 1, if the respondent has seen or heard about the victimization related to crimes of family, friends, or colleagues in the past year).

Neighborhood Conditions

We measured perceptions of neighborhood conditions in two domains: physical disorder and social disorder. The survey questions forming the basis of these perceptions were derived from previous studies measuring neighborhood disorder (Coulton et al. 1996; Taylor 2001; Sampson and Raudenbush 2004). Each domain comprised multiple questions using a 5-point Likert scale ranging from 1 (never) to 5 (often). Specifically, physical disorder was measured using the mean index of the following three questions (α = .801): (1) A dirty street with litter carelessly thrown around, (2) A dark and secluded place, (3) An unmanaged and abandoned car or vacant building. Similarly, social disorder was measured using the mean index of the following three questions (α = .798): (1) People who do not follow basic rules (jaywalking,

illegal parking, etc.), (2) Delinquent teenagers hanging out in groups, (3) People arguing or fighting loudly.

City Characteristics

We included two variables to measure city characteristics. The first variable categorizes the respondents' cities into metropolitan areas and smaller cities (Metropolitan = 1, smaller cities = 0). There are two main reasons for this classification. First, according to South Korean administrative standards, a metropolitan area is defined as having a population of over one million. Second, there is a significant difference in population density. Specifically, according to Statistics Korea, the population density of metropolitan areas ranges from 1,335 to 15,699 people per square kilometer, while smaller cities have a population density ranging from 90 to 364 people per square kilometer (KOSIS 2024).

The second variable is the crime rate in the respondents' cities. The crime rate for each city is based on crime analysis statistics published by the Supreme Prosecutors' Office of South Korea. It represents the number of crimes per one million people (Supreme Prosecutors' Office of the Republic of Korea 2020). To ensure more accurate measurements, the crime rates used in this study are the average figures from 2018 to 2020. Descriptive statistics for all variables included in the analysis can be found in Table 1.

Analytic Strategy

The main objective of this study is to investigate gender differences in the fear of crime. Initially, z-tests will be employed to examine whether there are gender differences in fear of different types of crimes. Subsequently, the study will assess whether the regression coefficients significantly differ by gender. Among several z-test formulas, this study used the Paternoster equivalence of coefficients test (Paternoster et al. 1998), the most stringent test.

Also, given that we are investigating the nested predictors of fear of crime at the individual, neighborhood, and city levels, hierarchical linear modeling (HLM) would be ideal. However, estimation bias may occur if there are a limited number of higher-level groups or insufficient samples within groups (Hox and Maas 2002; Hox et al. 2017). Consequently, we employ a more traditional analytical approach to predict fear of crime across multiple levels. Since the outcome variable is continuous, the model will be estimated using Ordinary Least Squares (OLS) regression. Multicollinearity diagnostics indicate that there are no collinearity issues in either the male or female models, as the individual Variance Inflation Factors (VIF) do not exceed 1.79 (mean VIF = 1.29). Additionally, heteroskedasticity was not found in the regression models for either gender.

Results

Table 2 presents the differences in fear of crime by gender, highlighting mean fear levels and z-scores for various crime-related concerns over the past year. Females consistently reported higher levels of fear across all items. Specifically, significant gender differences were found for concerns about home break-ins ($z = -5.42$, $p < .01$), harassment or confrontation outside ($z = -3.22$, $p < .01$), and assault ($z = -1.98$, $p < .05$). However, no significant differences were observed for worries about property vandalism ($z = -1.11$) and theft ($z = -0.63$). These results indicate that females exhibit statistically significant greater fear of personal crimes than property-related crimes.

Insert Table 2

The results of the multivariate OLS analysis predicting fear of crime by gender are presented in Table 3. Among males, several predictors significantly influenced fear of crime.

First, in terms of individual characteristics, personal victimization (b = .307, p < .01) and vicarious victimization (b = .225, p < .01) were associated with higher levels of fear. Age was a positive predictor (b = .007, p < .01), indicating that older males reported more fear. Additionally, physical disorder (b = .168, p < .01) and social disorder (b = .289, p < .001) in the neighborhood also significantly increased fear of crime. Neither of the city characteristics had a significant impact. Among the predictors for males, social disorder had the greatest influence on fear of crimes (ß = .250, p < .001).

For females, the regression model revealed different patterns. Among individual characteristics, single-person house was a significant positive predictor (b = .575, p < .001), suggesting that women living alone experienced more fear of crime. Unlike males, only personal victimization (b = .378, p < .01) was significant among females. Physical disorder (b = .289, p < .001) and social disorder (b = .296, p < .001) in the neighborhood were also significant predictors. Interestingly, living in a large city was negatively associated with fear of crime (b = -.242, p < .01), indicating that women in larger cities felt less fear. Among the predictors for females, the two neighborhood disorder variables and single-person house had the greatest influence. The model for females explained a higher proportion of the variance (R-squared = .297) than males (R-squared = .211).

The test results for the differences in regression coefficients between the two independent samples, males and females, show that the two groups' z-scores for Single Person House and Metropolitan are significantly different. This indicates that these factors affect fear of crime differently for males and females. Specifically, females exhibit significantly greater fear of crime when living alone (z = -3.16, p < .01) and significantly less fear when living in a large city (z =

2.64, $p < .01$) compared to males. On the other hand, the other variables do not show significant differences, suggesting that these factors predict fear of crime similarly for both genders.

Insert Table 3

Discussion

The purpose of this study was to investigate gender differences in the fear of crime using predictors at various levels. While literature examining gender differences in fear of crime is growing, few studies have utilized predictors at multiple levels to explore these differences. Previous research has identified several factors influencing the fear of crime across different levels (Barton et al. 2017; Brunton-Smith and Sturgis 2011; Franklin et al. 2008; Scarborough et al. 2010), but these factors have not been directly applied to examine gender differences. Consequently, we found significant differences between men and women in the fear of crime across various levels of variables. Below, we highlight this study's key findings, implications, and potential limitations.

The survey results indicated that women exhibited a significantly higher level of fear of crime than men, mainly concerning personal crimes such as burglary, assault, and harassment. These findings align with previous research (LaGrange and Ferraro 1989; Reid and Konrad 2004; Rountree and Land 1996; Schafer et al. 2006) and underscore the importance of recognizing the specific fears experienced by women. This result is also consistent with findings from South Korean studies, which suggest that women experience higher levels of fear regarding personal crimes compared to men, particularly due to perceived vulnerability and the threat of sexual violence (e.g., Hwang 2009; Sim 2021).

In addition to measuring the differences in fear of crime by gender across different crime types, the results of the multivariate analysis reveal important findings. At the individual level,

both men and women were significantly influenced by personal victimization. The impact of victimization experiences on fear of crime was consistent with prior studies (e.g., Braungart et al. 1980; Kennedy and Silverman 1985), confirming that direct experiences of victimization significantly heightened fear. In addition, neighborhood conditions, including both social and physical disorders, emerged as key factors that elevated fear of crime for both genders. This finding aligns with previous research, such as Skogan and Maxfield (1981), which similarly identified disorderly environments as contributing to heightened fear of crime. Finally, regarding city characteristics, living in a metropolitan area significantly reduced fear of crime among women, while it had no significant impact on men. This suggests that urban residency may affect fear differently depending on gender, highlighting the complex role that urban environments play in shaping crime-related fear.

Additionally, for women, the fear of crime was significantly higher when living alone compared to living with someone else, whereas for men, living alone did not significantly predict the fear of crime. Previous research has shown inconsistent patterns regarding cohabitation status and fear of crime (e.g., Callanan and Rosenberger 2015; Braungart et al. 1980; Giles-Sim 1984; Kennedy and Silverman 1985), and studies explicitly examining gender differences in this context are particularly rare, making these findings especially noteworthy. Meanwhile, in South Korea, where this study is based, single-person households constituted approximately 33.6% of all households as of 2023, a significant increase from around 15.5% in 2000, indicating a rapid growth in this demographic (KOSIS 2024). Beyond South Korea, recent data from the 2020 Census indicates that over a quarter (27.6%) of all households in the United States are single-person households, up from 7.7% in 1940, with this percentage steadily increasing every decade

from 1940 to 2020 (Anderson et al. 2023). Therefore, more refined future research on fear of crime among single-person households and gender differences is warranted.

Another important finding is significant differences in fear of crime between men and women depending on city size. Specifically, women living in large cities experience less fear of crime than those living in smaller towns, whereas, for men, the size of the city does not significantly predict fear of crime. This finding suggests that fear of crime is closely linked to the urban context, particularly for women, where large cities' social and physical environments may play a crucial role in alleviating this fear. Well-developed public infrastructure, natural social surveillance due to high population density, and more efficient police response in large cities can provide women with greater safety (Scarborough et al. 2010; Swatt et al. 2013). In contrast, men's fear of crime appears to be influenced more by personal social experiences or subjective perceptions than by the physical environment, indicating that men may experience fear of crime based on their social position or experiences, regardless of city size (Fetchenhauer and Buunk 2005).

This study has produced significant results, but it is not without limitations. First, as previously mentioned, while this study includes variables at multiple levels, it did not account for the random effects of higher-level groups. In other words, the characteristics of the nested sample could have provided additional valuable insights. However, limitations in the number of higher-level groups and the sample size within these groups prevented further analysis. Additionally, short-term events or factors around the time of the survey may have significantly influenced responses. For example, in May 2019, a series of crimes targeting single-person households of women in South Korea was widely covered by the media, which may have heightened the anxiety among South Korean women living alone (Sim 2021). Considering that

the fear of crime among the participants in this study was measured in October 2021, it is possible that women living alone were more affected by these issues than men. To overcome these limitations, future research should utilize longitudinal or panel data to track changes over time and establish more apparent causal relationships. Another limitation is the representativeness of the sample. Since the analysis in this study is based on measurements from South Koreans, the findings may not be applicable to other countries. Specifically, due to different levels of urbanization and cultural norms surrounding single-person households in various countries, these factors may not predict gender differences in fear of crime as effectively in other contexts.

Conclusion

Despite these limitations, our study makes significant contributions and holds important implications. First, by examining gender differences in fear of crime across various levels, our research extends beyond existing studies. Second, we found that living alone and large cities significantly influence these differences. Specifically, women experience a significantly greater fear of crime when living alone compared to men, and their fear of crime decreases when living in large cities. Finally, our study provides valuable insights into the specific situations in which women are more likely to experience fear of crime, thereby assisting policymakers in developing policies for safe urban planning and improving residential environments related to crime prevention.

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Table 1. Descriptive Statistics

	Male (N = 511)			Female (N = 489)		
Variable	Mean	SD	Min-Max	Mean	SD	Min-Max
Dependent variable						
Fear of crime	2.60	0.89	1-5	2.77	1.00	1-5
Individual characteristics						
Single-person house (%)	14.7	-	-	9.4	-	-
Personal victimization (%)	16.1	-	-	16.9	-	-
Vicarious victimization (%)	25.1	-	-	25.2	-	-
Age	44.7	13.2	19-69	45.1	13.4	19-69
Education	5.62	0.94	3-7	5.43	0.94	2-7
Income	5.16	2.15	1-9	4.97	2.05	1-9
Neighborhood conditions						
Perceived physical disorder	2.57	0.81	1-5	2.64	0.85	1-5
Perceived social disorder	2.69	0.77	1-5	2.74	0.82	1-5
City characteristics						
Metropolitan (%)	69.3	-	-	71.6	-	-
Crime Rate	3423	270	2298-4418	3425	262	2298-4418

Note. The survey was conducted based on South Korea's 16 administrative regions, which include seven metropolitan cities (Seoul, Busan, Daegu, Incheon, Gwangju, Daejeon, and Ulsan) and nine non-metropolitan regions. Metropolitan cities refer to large urban centers with administrative status equivalent to provinces, while non-metropolitan areas consist of smaller cities and provinces. This classification was used to distinguish between metropolitan and non-metropolitan areas and analyze fear of crime across different urban and rural contexts.

Table 2. Differences in Fear of Crimes by Gender

Items	Male	Female	
	Fear of Crime (mean)	Fear of Crime (mean)	*Z*
1. In the past year, I was worried that someone might break into my home.	2.51	2.88	-5.42***
2. In the past year, I was worried that someone might harass or confront me outside.	2.72	2.95	-3.22**
3. In the past year, I was worried that someone might beat (assault) and injure me.	2.56	2.70	-1.98*
4. In the past year, I was worried that someone might damage or vandalize my property.	2.57	2.65	-1.11
5. In the past year, I was worried that someone might steal my money or possessions without my knowledge	2.63	2.68	-0.63

Notes: The z-score test measures whether the mean of each item significantly differs between groups (male/female). The response scale ranged from 1 ("Not at all worried") to 5 ("Extremely worried"), with 3 being the middle, neutral category ("Neither worried nor unworried"). Many respondents chose this middle category, which may contribute to the clustering of means around 2.5. Neutral responses in fear of crime surveys are common, as respondents often express ambivalence or wish to avoid extreme answers (Krosnick & Fabrigar, 1997; Schafer et al., 2006).

*$p < .05$; **$p < .01$; ***$p < .001$ (two-tailed).

Table 3. OLS Regression Model Predicting Fear of Crimes by Gender

	Male			Female			
Variables	*b*	SE	ß	*b*	SE	ß	Z
Individual characteristics							
Single-person house	.032	(.10)	.012	.575***	(.14)	.168	-3.16**
Personal victimization	.307**	(.10)	.127	.378**	(.11)	.142	-.48
Vicarious victimization	.225**	(.08)	.110	.081	(.09)	.035	1.19
Age	.007**	(.01)	.108	-.004	(.01)	-.060	.21
Education	-.024	(.04)	-.026	-.041	(.04)	-.039	.30
Income	-.006	(.02)	-.015	.030	(.02)	.062	-1.27
Neighborhood conditions							
Perceived physical dis.	.168**	(.06)	.155	.289***	(.06)	.245	-1.42
Perceived social dis.	.289***	(.06)	.250	.296***	(.06)	.242	-.08
City characteristics							
Metropolitan	.059	(.07)	.030	-.242**	(.09)	-.104	2.64**
Crime Rate	-.001	(.01)	-.027	.001	(.01)	.057	-.14
Constant	1.35*	(.53)		.877	(.60)		
N		511			489		
R-Squared		.211			.297		

Notes: b = unstandardized regression coefficient, SE = standard error, ß = standardized regression coefficient.
When "gender" was included as an independent variable in the combined model, the "female" variable was found to be statistically significant ($b = 0.140$, $p = 0.009$)
*$p < .05$; **$p < .01$; ***$p < .001$ (two-tailed).