National College of Ireland

Investigating the Relationship Between Self-Efficacy and Fear of Crime in an Irish Population

Christopher Elliott

19380783

Supervisor: Dr. Conor Nolan

B.A. (Hons) in Psychology

National College of Ireland

March 2022

Submission of Thesis and Dissertation

National College of Ireland

Research Students Declaration Form

(Thesis/Author Declaration Form)

Name: Christopher Elliott

Student Number: 19380783

Degree for which thesis is submitted: BA (Hons) Psychology

Title of Thesis: Investigating the Relationship Between Self-Efficacy and Fear of Crime in an Irish Population

Date: 13/03/22

Material submitted for award

A. I declare that this work submitted has been composed by myself.

B. I declare that all verbatim extracts contained in the thesis have been distinguished by quotation marks and the sources of information specifically acknowledged.

C. I agree to my thesis being deposited in the NCI Library online open access repository NORMA.

D. ***Either*** *I declare that no material contained in the thesis has been used in any other submission for an academic award.
Or *I declare that the following material contained in the thesis formed part of a submission for the award of

QQI BA (Honours) Degree in Psychology at level 8

Signature of research student: Christopher Elliott

Date: 13/03/2022

Submission of Thesis to Norma Smurfit Library, National College of Ireland

Student Name: Christopher Elliott

Student Number: 19380783

School: School of Business, National College of Ireland

Course: Psychology Degree to be awarded: BA (Hons) Psychology

Title of Thesis: Investigating the Relationship between Self-Efficacy and Fear of Crime in an Irish Population

One hard bound copy of your thesis will be lodged in the Norma Smurfit Library and will be available for consultation. The electronic copy will be accessible in TRAP (http://trap.ncirl.ie/), the National College of Ireland's Institutional Repository. In accordance with normal academic library practice all theses lodged in the National College of Ireland Institutional Repository (TRAP) are made available on open access. I agree to a hard bound copy of my thesis being available for consultation in the library. I also agree to an electronic copy of my thesis being made publicly available on the National College of Ireland's Institutional Repository TRAP.

Signature of Candidate: Christopher Elliott

For completion by the school: The aforementioned thesis was received

by_____ Date: _____

This signed form must be appended to all hard bound and electronic copies of your thesis submitted to your school.

Acknowledgements

I would like to sincerely thank Dr. Conor Nolan for his guidance, patience and for replying to the many e-mails I sent him throughout the process of completing my thesis. I feel very fortunate to have had him as my supervisor. I also extend my thanks to the lecturers and staff in NCI for their time and assistance, especially during the challenges of the pandemic. I would like to thank everyone who participated in my study as none of this would have been possible without your contribution. I would like to thank my family, especially my parents and brothers for their support and encouragement.

Abstract

The aim of this study was to investigate the relationship between fear of crime and self-efficacy, a relationship previously unexplored in an Irish setting. This study also aimed to build on the existing literature surrounding the relationships between fear of crime and the variables of gender, age and victimization status. Previous studies have indicated that fear of crime is associated with impaired mental and physical functioning, increased stress levels, avoidant behaviours and a lower quality of life. A convenience sample approach was implemented to distribute an online survey to participants (n = 124) through social media, which contained a demographic questionnaire, a Generalized Self-efficacy Scale and a Fear of Crime Scale. Findings from Spearman's Rho analyses suggest higher generalized self-efficacy and greater age, are associated with lower fear of crime levels. Mann-Whitney U test analyses indicated an absence of significant differences between victims and non-victims, and significantly higher fear of crime levels for females compared to males. A multiple regression analysis revealed generalized self-efficacy and gender, but not age and victimization status, significantly predicted fear of crime, accounting for 21% of the variance in fear of crime scores. Results are both supportive, as well as challenging, of previous findings. Findings from this study form a foundation for future research, with the potential for development of a psychological-based intervention that may address fear of crime through practices that improve self-efficacy.

Table of Contents

Submission of Thesis and Dissertation……ii

Submission of Thesis to Norma Smurfit Library……...iii

Acknowledgements……iv

Abstract……v

Table of Contents……vi

Introduction……1

Current Study……...9

Methodology……..12

Recruitment and Participants……12

Measures……13

Generalized Self-Efficacy Scale……13

Fear of Crime Scale……14

Study Design……..14

Study Procedure……15

Ethical Considerations……...16

Results……18

Descriptive Statistics……..18

Inferential Statistics……...20

Summary……23

Discussion……..24

Practical Implications…….27

Strengths and Limitations……..28

Conclusion…….30

References……..32

Appendices……65

Literature Review

According to the Terror Management Theory, a substantial amount of human behaviour is dictated by our fear of death (Menzies & Menzies, 2020). Since criminal activity can potentially result in the injury and death of victims (Santaularia et al., 2021), a fearful response may act as a natural defence against crime (Gray et al., 2010). Fear of crime involves an uneasy reaction in the presence of crime-related stimuli (Garofalo, 1981). The term 'fear of crime' originated from changes in crime policies in 1970's America (Boers, 2003; Gray et al., 2011), but widespread worry about crime has a longer history (Jackson, 2006; Farrall et al., 2009). Crime survey findings indicate that fear of criminal activity is a considerable social concern, but successful empirical measurement of the construct has proved difficult historically (Gabriel & Greve, 2003). A widely accepted definition of fear of crime has been a heavily debated subject despite decades of research (Ferraro & LaGrange, 1987; Warr, 2000). Conventional definitions state that the fear of crime is a fear of being victimized (Hale, 1996; Franc & Sucic, 2014).

Psychological processes are often overlooked in fear of crime research (Jackson, 2009). A psychological definition of fear of crime encompasses emotional, behavioural and cognitive components, where fear is an emotional response towards perceived dangers which can cause avoidant behaviour (Erčulj, 2021). The cognitive component involves processes of risk perception, while the behavioural component is the physical response, which tends to be avoidant behaviour (Franklin et al., 2008). The affective component is the emotional response that is present when fearful (Fattah & Sacco, 1989). Warr (2000) believes that fear is a response to the perceived environment. This reflects the rationalistic paradigm present in fear of crime literature (de Donder et al., 2005). The alternative and symbolic paradigm suggests that general feelings of vulnerability become generalized to crime-specific subjects (Elchardus et al., 2008).

Ferraro and Grange (1987) proposed that fear of crime contains general and personal fear. General fear refers to perceptions of the external environment. Personal fear is an individual's concern and perceived likelihood of being victimized (Piscitelli & Perrella, 2017). Fear of crime is much more prevalent than personal experiences of crime (Mawby et al., 2019).

In Ireland victims of homicide are largely male (84.2%), while reported victims of sexual assault are mostly female (79.2%) (Central Statistics Office, 2020). Ireland is a relatively safe European country, with only drug and burglary offences above the European average (European Commission, 2021). Yet Ireland's Mid-East region had some of the highest levels of fear of crime in western Europe (Rueda & Stegmueller, 2015). The belief that crime rates directly impact fear of crime has received some support (Liska et al., 1982; Visser et al., 2013; Breetzke & Pearson, 2014), although lower crime rates (Farrell et al., 2011; Pease & Ignatans, 2016) might not result in lower fear of crime levels (Ditton et al., 1998; Cossman & Rader, 2011; Prieto Curiel & Bishop, 2018). Even as crime rates fall in wealthier Western societies, fear of crime levels remain consistent (Rader, 2017; (Chataway & Bourke, 2020). Pytlarz and Bowden (2019) believe that fear of crime is potentially more problematic than crime itself.

Fear of crime is associated with poorer mental health, impaired physical functioning and a lower overall quality of life (Stafford et al., 2007; Warner & Thrash, 2019). Both personal experiences of criminal victimization, and a fear of crime promote negative health outcomes (Lorenc et al., 2014). Fear increases stress levels (Ropeik, 2004), and if prolonged, increases the likelihood of premature mortality (Russ et al., 2012). The avoidant and precautionary behaviours associated with fear of crime are dysfunctional in nature, further contributing to negative outcomes for affected individuals (Doran & Burgess, 2011; Solymosi et al., 2020). Avoidant behaviours can lead to withdrawal from social activities (Zhao et al., 2010). As a result, fear of

crime not only has detrimental consequences for the individual, but also has broader implications for society as a whole (Brooks, 1974). It can promote mistrust in governments and law enforcement officials tasked with confronting crimes (Chataway & Bourke, 2020). The Incivilities Thesis suggests that signs of local social disorder and physical deterioration increase both personal and communal concerns (Robinson et al., 2003; Wyant, 2008; Scarborough et al., 2010; Abdullah et al., 2013). According to the Social Disorganisation Theory, an increase in communal concerns can increase the fear of crime levels of individuals in the local area (Markowitz et al., 2001; Abdullah et al., 2013; Porter et al., 2011; Chadee et al., 2017). Fear of crime can negatively impact on social cohesion and neighbourhood attachment, with local residents potentially feeling a loss of control as a result (Donnelly, 1989; Roberts & Gordon, 2016). Alternatively, fear of crime can encourage self-preserving behaviours, alertness and promote problem-solving (Gray et al., 2010).

Numerous socio-demographic variables are associated with fear of crime, with gender often cited as being a significant predictor (Parker & Ray, 1990; Henson & Reyns, 2015; Özaşçılar & Ziyalar, 2015; Lee et al., 2020; Pryce et al., 2020; Farrall et al., 2021). Ireland however, was in a minority of European countries where gender wasn't a significant predictor of fear of crime (Reese, 2009). The environment may impact on gender differences in fear of crime, with the gap not as distinct in rural populations compared to urban populations (Pleggenkuhle & Schafer, 2017). Clemente and Kleiman (1977) found gender and city size were strong predictors for fear of crime. Hodgkinson and Lunney (2021) reported that gender did not predict fear of crime in non-urban environments, however females in urban environments exhibit higher fear of crime levels (Johansson & Haandrikman, 2021). Smith et al. (2001a) state that females are greatly impacted by the surrounding environment while males tend to personalize vulnerabilities.

Hale (1996) acknowledged the existence of a fear-victimization paradox in relation to gender differences in fear of crime levels. Females typically exhibit higher fear of crime levels despite males being at a greater risk of victimization (Stanko, 1995). Male perception of crime is potentially shaped by altruistic concerns for loved ones, rather than personal safety (Lu et al., 2021). Sidebottom and Tilley (2008) also suggested that males often underestimate the actual risk of victimization. This results in a large discrepancy between males and females when taking precautions in relation to crime (del Frate et al., 1993). This paradox may exist due to the purposeful reporting of lower fear of crime levels by males, as this is perceived as a socially-desirable response (Sutton & Farrall, 2004). Conversely, males may report higher fear of crime levels than females when discussing crimes which disproportionally victimize males (Reid & Konrad, 2004). However, the Shadow of Sexual Assault Hypothesis posits that female general fear of crime levels are elevated due to a specific fear of sexual crimes (Özascilar, 2013; Lee et al., 2022), a theory which has received support in the literature (Fisher & Sloan, 2003; Hilinski, 2008; Özaşçılar & Ziyalar, 2015; Mellgren & Ivert, 2018); Choi et al., 2019; Bailey, 2021). This hypothesis is possibly more relevant for females, as they are more likely to be sexually victimized (Hickey et al., 2008; Ngo et al., 2018). Fear of sexual assault however, has been shown to be a stronger predictor of fear of crime for males, rather than females (Choi et al., 2019).

While the relationship between age and fear of crime is not as strong as that of gender and fear of crime (LaGrange & Ferraro, 1989), previous studies have identified a significant correlation (Parker & Ray, 1990; de Donder et al., 2005; Karakus et al., 2010; Scarborough et al., 2010; Abbott et al., 2020). However, some studies fail to find a significant relationship between age and fear of crime (Taylor & Covington, 1993; Roh & Oliver, 2005; Shechory-Bitton &

Cohen-Louck, 2016). Nevertheless, it is widely accepted that a positive relationship exists between age and fear of crime, but this may be dependent on context and situational factors (Jeffords, 1983). Elderly individuals in urban environments exhibit higher fear of crime levels than rural elderly inhabitants (Clememte & Kleiman, 1976; Ollenburger, 1981; Covington & Taylor, 1991; Köber & Oberwittler, 2019). Age is a predictor of fear of crime in wealthy neighbourhoods, while young and older inhabitants in disadvantaged areas have similar levels (Köber et al., 2020). This is reflective of more recent research which has identified a curvilinear relationship between age and fear of crime (Rader et al., 2019). Thus, young and old people are potentially more fearful of crime than middle-aged individuals (LaGrange & Ferraro, 1989; Schildkraut et al., 2015; Boateng & Adjekum-Boateng, 2017). Lindesay (1997) discovered that elderly populations were able to perceive an increased susceptibility to physical assault. An awareness of their age-related physical vulnerabilities could be the cause of the increased fear of crime levels exhibited by the elderly (McCoy et al., 1996; Greve, 1998; Lee et al., 2008; Taylor et al., 2009). Tulloch (2000) believes the effects of age on fear of crime are mediated by a perceived risk of victimization.

According to victimization theories, fear of crime is primarily instigated by previous experiences of victimization (Lorenc et al., 2014), which has received some support in the literature (Parker & Ray, 1990; Frimpong et al., 2018; Han & Connell, 2020). Victimization experiences often leaves the victim questioning their abilities, negatively impacting their self-efficacy (Mencken et al., 2021). Conversely, studies have shown that fear of crime is unaffected by previous experiences of victimization (Winkel, 1998; Sookram et al., 2011; Chadee & Ng Ying, 2013), with an absence of significant differences between victims and non-victims of criminal activity (Smith & Hill, 1991b; Ellis & Renouf, 2017; Guedes et al., 2018; Maier &

DePrince, 2019). Thus, both individuals who have been previously victimized and those who haven't remain fearful of crime (Prieto Curiel & Bishop, 2018). However, perceived risk of victimization has been shown to significantly predict fear of crime (Crowl & Battin, 2016). Females have a greater recognition of the consequences of victimization (Jackson, 2004). Furthermore, The Distribution Theory states that the number of people with experiences of victimization is much lower than the number of people who fear crime (Lee, 2018). This may indicate that fear of crime is driven by factors other than personal experiences of interactions with criminal activity. The 'vulnerability perspective' is a key aspect of individual level theories (Henson & Reyns, 2015). Gender, age and victimization experiences are all considered important variables in the 'Vulnerability Model' (Alper & Chappell, 2012). Vulnerability theories are well supported (Schafer et al., 2006; Vilalta, 2011a; Vilalta, 2011b). The Vulnerability Hypothesis posits that self-perception of personal vulnerabilities increases an individual's fear of crime (McCrea et al., 2005). Individuals who perceive themselves as being vulnerable, typically have lower self-efficacy levels (Hinkle, 2014).

Self-perception can be defined as the various beliefs an individual has about themselves (Shapka & Khan, 2018). Self-perception allows for self-evaluation (Yammarino & Atwater, 1993). Self-efficacy encompasses beliefs in one's ability to exert control over and respond appropriately in circumstances that affect them (Bandura., n.d., 1977, 1978, 1984, 1990, 1992, 2000a, 2006, 2011; Bandura et al., 1999). Self-efficacy is a key concept in Social Cognitive Theory (Lent & Brown, 1996). According to Social Cognitive Theory, self-efficacy plays an important role in controlling anxiety and arousal (Bandura, 1988). Low self-efficacy levels are associated increased fear levels (Raeder et al., 2019). Self-efficacy can also predict avoidant behaviours (Kallmen, 2000; Tahmassian & Moghadam, 2011; Firth et al., 2019), as higher self-

efficacy levels are associated with less avoidant behaviours (Cherenack et al., 2018). Raeder et al. (2019) suggests that lower levels of perceived self-efficacy preserve fear-related behavioural responses. Perceptions of self-efficacy may be a bigger motivator for precautionary behaviour than fear is (Ruiter et al., 2001). Social Cognitive Theory describes human functioning as being influenced by environmental factors, intrapersonal relationships and the behaviours people choose to engage in (Bandura, 2018).

Self-efficacy can be specific to situations involving criminal activity (Ranzijn et al., 2002), moderating self-preserving behaviours in the presence of feared crime-related stimuli (Asencio et al., 2014; Yuan et al., 2016), which is described in self-efficacy theory (Bandura, 1983). Instances where the personal control of an individual is challenged can have negative repercussions for the well-being and self-efficacy of the individual (Phelan et al., 2009). Individuals naturally desire control over events that affect them (Bandura, 2000b). Emotional responses stemming from perceived likelihood of victimization are exacerbated by lower levels of self-efficacy (Ab Aziz et al., 2017). Perceptions and fears of crime are influenced by perceived physical vulnerabilities (Department of Justice, Equality and Law Reform, 2009; Doran & Burgess, 2011). Females are less likely to perceive self-efficacy (Jackson, 2004). A meta-analysis conducted by Huang (2012) indicated that gender differences may exist in relation to specific types of self-efficacy. Males often report higher levels of general self-efficacy (Schwarzer et al., 1997; Hartzel, 2003; Bonsaksen et al., 2017; Bonsaksen et al., 2018), but these differences decline with age (Leung & Leung, 2010). General self-efficacy is a belief in an ability to respond appropriately which becomes generalized across a variety of different circumstances and situations (Chen et al., 2001). Scholz et al. (2002) warn that these results may be a consequence of non-representative samples and some studies acknowledge inconsistent

findings in relation to these gender differences (Leganger et al., 2000; Löve et al., 2011). Nevertheless, lower self-efficacy levels may explain why females tend to worry more about crime (Jackson et al., 2008). However, perceptions of physical vulnerabilities may cause a reduction in the self-efficacy of females (Vauclair & Bratanova, 2016).

Perceptions of weaker self-defensive capabilities and physical strength are associated with elevated fear of crime levels (Zhang et al., 2009). But partaking in activities such as self-defence training can elevate perceptions of self-efficacy (Weitlauf et al., 2000; Freundschuh, 2006). Madden (1995) found enrolment in a martial arts class resulted in participants feeling a decrease in vulnerability and an increase in perceived personal control. Perceived risk of victimization increases the individual's desire to learn more about self-defence (Ferraro, 1995). For instance, transwomen are at a high risk of victimization and many consequently attend self-defence classes (Noack-Lundberg et al., 2019). Previous victims of sexual assault are also more likely to take safety precautions like enrolling in a self-defence class (Conroy & Cotter, 2017). Yet, avoidant behaviours are much more common approach than self-defence training (Krahn & Kennedy, 1985). In Korea, where self-defence products are widely available, avoidant behaviours remain the most common response to fear of crime (Cho & Park, 2017). Gabriel and Greve (2003) believe enrolment in activities, including self-defence training, to be a fear-related reaction. McDaniel (1993) found this to be the case as people who attend self-defence classes are initially more fearful than a control group, but less fearful following the conclusion of the study. Scott (2003) identified self-defence training as the only self-protective measure not associated with an increase in fear of crime levels, although this finding was non-significant. Self-defence training can effectively reduce fear of victimization and improve self-efficacy (Ball & Martin, 2012).

Current Study

The relationship between self-efficacy and fear of crime has not previously been studied in an Irish setting. This study examines this previously unexplored relationship, the findings of which could – subject to further research – have the potential to inform the development of a psychologically-based intervention. Fear of crime can have negative consequences for the individual and for society as a whole. It negatively affects both mental and physical health (Stafford et al., 2007; Warner & Thrash, 2019). It often evokes avoidant behavioural patterns which negatively affect the individual's social and overall quality of life (Kujala, 2021). In fact, fear of crime is potentially a larger societal problem than crime itself (Pytlarz and Bowden, 2019). Thus, it is crucial that this issue is further explored to assist in identifying and validating potential psychological interventions. Socio-demographic variables such as gender (Farrall et al., 2021), age (Abbott et al., 2020) and victimization experiences (Frimpong et al., 2018) are all important factors in fear of crime research.

Psychological factors are often overlooked in favour of these socio-demographic variables in fear of crime research (Jackson, 2009; Chadee et al., 2016; Guedes et al., 2018). Individuals cannot control demographic variables, such as age, but psychological factors like self -efficacy can be controlled (Karl et al., 1993; Vancouver et al., 2002; Peng et al., 2020) and even improved (Taylor & Wilson 2019). For instance, self-defence training has proved to be an effective approach for improving self-efficacy levels (Ball & Martin, 2012). Hummelsheim et al. (2010) even recommended that state policy makers should aim to increase the self-efficacy of individuals as a means of combating fear of crime. It seems logical that individuals who believe that they possess the necessary skills to react appropriately in dangerous situations will be less fearful than their counterparts low in self-efficacy (Gabriel & Greve, 2003). Elevated levels of

perceived self-efficacy can, in fact, reduce an individual's fear of victimization (Yuan et al., 2016) which is closely linked to fear of crime. However, more research is required to determine whether a significant relationship exists between self-efficacy and fear of crime (Brown & Benedict, 2004).

Given the effects of negative mood on self-efficacy (Kavanagh & Bower, 1985) and the mood disturbances caused by the Covid-19 pandemic (Terry et al., 2020), it is of interest to examine the general self-efficacy of Irish citizens. Additionally, there has been a notable decrease in research focused on fear of crime in Ireland during the Covid 19 pandemic. Crime rates potentially influence fear of crime levels (Breetzke & Pearson, 2014; Visser et al., 2013; Liska et al., 1982). Alternatively, lower crime rates (Farrell et al., 2011; Pease & Ignatans, 2016) might not affect fear of crime (Cossman & Rader, 2011; Prieto Curiel & Bishop, 2018). As crime rates fell during the pandemic (Central Statistics Office, 2021), it is of interest to establish whether previous differences in fear of crime levels still exist between genders and victims and non-victims of crime.

This study aims to add to existing literature surrounding the fear of crime and the previously associated variables such as gender, age and experiences of victimization. This will be achieved by measuring these variables in Irish citizens, an understudied population in fear of crime literature. This data will make the current study generalizable, and comparisons can be made with other fear of crime research conducted before the Covid-19 pandemic. The relationship between fear of crime and self-efficacy, which is often overlooked in fear of crime literature, will also be assessed. Based on the aforementioned aims of this study, the following five research questions and hypotheses were produced:

Question 1: Is there relationship between self-efficacy and fear of crime? It is hypothesised that there will be a significant and negative correlation between self-efficacy and fear of crime. Such a finding would suggest that higher levels of self-efficacy are associated with lower fear of crime levels.

Question 2: Is there a relationship between age and fear of crime? It is hypothesised that a significant positive correlation between age and fear of crime will be found. Such a finding would indicate that, as a person ages, they will exhibit higher fear of crime levels.

Question 3: Do gender differences exist in relation to fear of crime? It is hypothesised that females will exhibit significantly higher fear of crime levels compared to males.

Question 4: Are fear of crime levels different for victims and non-victims of crime? It is hypothesized that previous victims of crime will not have significantly higher fear of crime levels compared to non-victims.

Question 5: Which variable is the best predictor of fear of crime: self-efficacy, age, gender or victimization status? It is hypothesized that the variables self-efficacy, age and gender will significantly predict fear of crime levels, but victimization status will be non-significant. It is hypothesized that self-efficacy will make the largest significant individual contribution, followed by gender and age.

Methodology

Recruitment and Participants

The study sample (n = 124) consisted of 50 male (40.3%) and 74 (59.7%) female individuals. One participant identified as non-binary (0.8%) and as they were the sole member of this group, it was not feasible to include their data which was omitted prior to the commencement of analyses. Participant ages ranged from 18 to 82 (M = 38.30, SD = 17.48). Prior to conducting analyses, two participants indicated that they were under the age of 18, and their data was subsequently removed in line with ethical considerations (National College of Ireland, 2018; The Psychological Society of Ireland, 2019). Participants also stated their victimization status (Appendix II), with 57 (46%) reporting they had, while 67 (54%) stated they hadn't been victimized. Participation was limited to Irish citizens, as the current study was concerned with the relationship between fear of crime and factors such as self-efficacy, gender, age and victimization status, in an Irish setting.

G*Power (version 3.1.10) was used to identify appropriate sample sizes to sufficiently answer questions posed in the current study (Faul et al., 2007; Faul et al., 2009). The Pearson's r correlations associated with the first and second research questions required 46 participants to calculate a large effect size (Cohen's d =.50). The independent-samples t-tests associated with the third and fourth research questions required 84 participants to calculate a large effect size (Cohen's d =.80). The multiple regression associated with the fifth research question required 59 participants to calculate a large effect size (Cohen's f^2 = .35). Convenience sampling was used to recruit participants through the story feature of the researcher's Instagram and Snapchat accounts. There were no financial rewards or recompense for participation.

Measures

Using the survey platform Google Forms, an informed consent sheet (Appendix I), demographic questionnaire (Appendix II), Generalized Self-Efficacy Scale (GSES) (Appendix III) and Fear of Crime Scale (FOCS) (Appendix IV) and debrief sheet (Appendix V) were shared with participants. IBM SPSS Statistics 27 was used to analyze participant responses. The demographic questionnaire collected participant data for the variables gender (male/female/non-binary/other), age and victimization status (yes/no), which both describe the characteristics of the study sample, and are also important variables in fear of crime literature (Chadee, 2003; Prieto Curiel & Bishop, 2018; Pryce et al., 2018).

Generalized Self-Efficacy Scale (GSES). A psychometric scale (Robinson, 2017) and self-report measure assessing the confidence one has to elicit an appropriate response in demanding situations (Brady, 2003). Schwarzer and Jerusalem (1995) developed the original German version of the scale (α = 0.82-0.93), which has shown acceptable internal-reliability (α = 0.75-0.91) in study samples from 25 different countries (Scholz et al., 2002; Damásio et al., 2016). The GSES contains 10 statements, each with four potential responses: 1 = ‘not true at all’; 2 = ‘barely true’; 3 = ‘moderately true’; 4 = ‘exactly true’. Participants chose a response based on how accurately the statement described them. No reverse scoring is required and scores from each question are added together. This process generates the continuous variable ‘generalized self-efficacy’. GSES scores can range from 10 to 40. Scores towards the upper end of this range are associated with higher levels of generalized self-efficacy (Schwarzer and Jerusalem, 1995). Scores towards the lower end of the scale are associated with lower levels of generalized self-efficacy. This study used an English version of the GSES with changes made by Barlow et al. (1996). Question 2 was originally phrased “means and ways”, and was changed to “ways and

means". Question 9 was originally phrased "in a bind", and was changed to "in trouble". According to Barlow et al. (1996), the amended version of the GSES showed acceptable internal consistency (Cronbach's $\alpha = 0.91$). The internal consistency of the GSES in the current study was also acceptable (Cronbach's $\alpha = .861$).

Fear of Crime Scale (FOCS). The FOCS (Foster et al., 2014; Foster et al., 2016) measures the construct 'fear of crime' by asking an individual how fearful they are in their everyday life of becoming a victim of certain types of criminal activity. The five questions in the FOCS are based on a sixteen-item scale designed by Warr and Stafford (1983). Crimes such as stalking, robbery, property damage, physical assault and home invasion are mentioned in the FOCS. The FOCS is a five-point Likert scale with only the extreme ends labelled 'not fearful' and 'extremely fearful', making it an interval scale (Hamby & Levine, 2015). A value of 1 is assigned to the lowest extreme, while a value of 5 is assigned highest extreme. No reverse scoring is required and scores from each item are added together. This generates the continuous variable 'fear of crime'. Overall fear of crime scores can range from 5 to 25. Scores at the low-end of this range indicate an individual is not overly fearful of crime. Scores towards the high-end of this range indicate an individual is very fearful of crime. Intermittent values in Likert scales are generally labelled, but in the FOCS, the values 2, 3 and 4 are not labelled (Sullivan & Artino, 2013). According to Moors et al. (2014), only labelling the extreme ends of a scale may encourage extreme scoring by participants. However, the FOCS has a Cronbach's α of 0.92 (Ferraro, 1995; Foster et al., 2016), showing good internal consistency (Tighe et al., 2010). The internal consistency of the FOCS was also acceptable in the current study (Cronbach's $\alpha = .911$).

Study Design

The current study used a cross-sectional research design, which was quantitative in nature. A correlational research design was employed to examine the relationship between variables (Curtis et al., 2016). In research questions 1 and 2, fear of crime was the dependent variable (DV), while generalized self-efficacy and age were independent variables (IVs). A between-subjects design was employed to identify differences in scores between distinct groups for a continuous variable (Keren & Lewis, 2014). In research questions 3 and 4, fear of crime was the DV, while victimization status and gender were IVs. A standard multiple regression analysis was utilized to answer research question 5. Generalized self-efficacy, age, gender and victimization status were predictor variables, while fear of crime was the criterion variable.

Study Procedure

The survey platform Google Forms was used to host the informed consent sheet, debrief sheet and the three questionnaires. The survey was initially piloted to gauge an average time for completion and to ensure that the study was comprehensible for participants. Individuals that participated in the pilot study reported that no issues were noticed whilst completing the survey which took approximately less than 10 minutes to complete. The approximate time for completion was added to the informed consent sheet and the survey was subsequently made publicly available. A link to the survey was shared through the story feature of the social media platforms snapchat and Instagram, using the researcher's accounts. A description of the study, eligibility criteria and a guarantee of anonymity accompanied the link. When a participant clicked on the link, they gained access to the informed consent sheet (Appendix I). Participants received a more detailed description of the study, specifically why this research was being carried out and what questionnaires they were being asked to complete. Eligibility criteria were repeated and participants were made aware of their right to leave the survey without

penalization. If participants wished to ask any questions, appropriate contact information was provided. Participants were informed that they would remain anonymous, and as a result it would not be possible to withdraw responses once submitted. Participants ticked a box, confirming that they met the eligibility criteria and were sufficiently informed about the nature of the study.

Participants then gained access to a demographic questionnaire (Appendix II), where they reported their gender, age and victimization status. Participants then completed the Generalized Self-Efficacy Scale (Schwarzer and Jerusalem, 1995) (Appendix III) with the adaptations made by Barlow et al. (1996). This self-report measure assessed the participant's self-efficacy levels. Once the participant completed the 10 items in the GSES, they gained access to the Fear of Crime Scale (Foster et al., 2014) (Appendix IV). Participants reported how fearful they were of five different types of criminal activity using a Likert scale. Once the participant completed the 5 items in the FOCS, they had completed the survey and were shown a debrief sheet (Appendix V). The debrief sheet provided a description of questionnaires and restated the purpose of the survey. References for reading material related to fear of crime and self-efficacy were provided. Contact details for the researcher and their supervisor were provided should the participant have any questions. If the participant became distressed following the questionnaires, contact details for helplines were provided. Participants were thanked for their time and submitted their responses.

Ethical Considerations

Prior to being made publicly accessible, this study was reviewed and approved by the National College of Ireland's Ethical Committee. Data collection was conducted in line with the ethical guidelines of the PSI (The Psychological Society of Ireland, 2019) and NCI (National

College of Ireland, 2018). Participants were informed of their right to withdraw without penalization. They were also made aware that the study would be made available for access in NCI's library and their anonymized data would be retained for 5 years. Participants provided informed consent confirming that they were over 18 years of age, an Irish citizen and were participating voluntarily. Data for two participants that failed to meet these criteria was removed as to avoid the unnecessary recruitment of potentially vulnerable individuals (National College of Ireland, 2018). It should be noted that the FOCS used in this study was selected as its questions were much less graphic in nature in comparison to alternative questionnaires, including the scale designed by Warr and Stafford (1983). However, if participants did become distressed contact details for helplines were provided in the debrief sheet.

Results

Descriptive Statistics

Preliminary descriptive analysis was conducted to assess the distribution of the data, and also to establish whether relevant assumptions were met or violated. The current study sample (*n* = 124) contained 74 female (59.7%) and 50 male (40.3%) participants. All participants disclosed their victimization status, with 57 (46.0%) indicating that they had been victims of crime, while 67 (54.0%) had not been victimized. Data for the categorical variables gender and victimization status are summarized in Table 1.

Table 1

Descriptive statistics for categorical variables gender and victimization status, N = 124.

Variable	Frequency	Valid %
Gender		
Female	74	59.7
Male	50	40.3
Victimization Status		
Victim	57	46.0
Non-Victim	67	54.0

The mean (*M*), standard deviation (*SD*), range, median (*Md*) and standard error (*SE*) for the variables generalized self-efficacy, age and fear of crime are presented in Table 2. Participant

(n = 124) generalized self-efficacy scores (GSES) ranged from 21 to 40 (M = 30.32, SD = 4.19). Scores on the fear of crime scale (FOCS) ranged from 5 to 25 (M = 15.19, SD = 5.95). Participant ages ranged from 18 to 82, with a mean age of 38.30 (SD = 17.48). A histogram visually highlighted the non-symmetrical distribution of data for the variable age, which reflected its associated skewness and kurtosis values (see Table 2). The significant ($p < .05$) values associated with the Kolmogorov-Smirnov test of normality for the variables generalized self-efficacy ($p = .002$), age ($p < .0005$) and fear of crime ($p < .0005$) are associated with non-normally distributed data. Consequently, robust parametric tests or non-parametric alternatives were implemented when making inferences about the data. Internal consistency for the GSES (.861) and FOCS (.911) were acceptable, with Cronbach's α values for the scales being similar to those from other studies (Foster et al., 2016; Damásio et al., 2016)

Table 2

Descriptive statistics for the continuous variables generalized self-efficacy, age and fear of crime, N = 124.

Variable	*M* [95% Cl]	*SD*	Range [Min-Max]	*Md*	*SE*	Skewness	Kurtosis
Generalized Self-Efficacy	30.32[29.58-31.07]	4.19	19[21-40]	30	.38	.089	-.054
Age	38.30[35.19-41.41]	17.48	64[18-82]	39.50	1.57	.241	-1.378
Fear of Crime	15.19[14.13-16.24]	5.95	20[5-25]	15	.53	-.035	-1.219

Inferential Statistics

Preliminary analyses indicated that the data distribution of the variables generalized self-efficacy, age and fear of crime violated assumptions of normality. Consequently, the non-parametric alternative to a Pearson's correlation coefficient, a Spearman's rank correlation coefficient (r_s), was used to examine the relationship between fear of crime, age and generalized self-efficacy. Findings from this analysis are summarized in Table 3 below. In accordance with the guidelines proposed by Cohen (1988), a moderate, negative, significant correlation was found between generalized self-efficacy and fear of crime ($r_s = -.391$, $n = 124$, $p < .001$). The coefficient of determination was calculated, indicating that generalized self-efficacy explains 15.29% of the variance in participants' fear of crime. This finding suggests that a higher level of generalized self-efficacy is associated with lower fear of crime levels. A small, negative, significant correlation was found between age and fear of crime ($r_s = -.258$, $n = 124$, $p < .01$). Age explains 6.66% of the variance in participants' fear of crime. Results indicate that greater age is associated with lower fear of crime levels.

Table 3

Correlation table for the variables generalized self-efficacy, age and fear of crime, N = 124.

Variable	1.	2.	3.
1. Generalized Self-Efficacy	1	.205*	-.391***
2. Age	.205*	1	-.258**
3. Fear of Crime	-.391***	-.258**	1

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

Preliminary analyses were carried out to ensure assumptions of homoscedasticity, normality and linearity were met. These analyses indicated that the variable fear of crime violated assumptions of normality. As a result, a non-parametric Mann-Whitney U was implemented. Findings from the Mann-Whitney U tests that examined fear of crime differences between males and females, and victims and non-victims, are summarized in Table 4 below. Scores on the FOCS were found to be significantly ($p < .05$) higher for females ($Md = 18$, $n = 74$) compared to males ($Md = 12$, $n = 50$), $U = 2615$, $z = 3.90$, $p = .000$. In accordance with the guidelines proposed by Cohen (1988), a medium (.35) effect size was present. No significant difference ($p > .05$) in fear of crime was found between victims ($Md = 15$, $n = 57$) and non-victims ($Md = 16$, $n = 67$) of crime, $U = 2034$, $z = .63$, $p = .532$.

Table 4

Mann-Whitney U tests examining fear of crime differences for the grouping variables gender and victimization status, N = 124.

Variables	*Md*	*SE*	*U*	*z*	*r*	*p*
Gender	15	195.99	2615.00	3.90	.35	.000*
Female	18					
Male	12					
Victimization Status	15	199.12	2034.00	.63	.06	.532
Victim	15					
Non-Victim	16					

*Note: * p <.0005*

A standard multiple regression analysis was performed to determine the best predictor of fear of crime, from a model containing GSES, age, gender and victimization status. As no *a priori* hypotheses were made to decide the entry order of the predictor variables, a direct method was used for data analysis. The small difference between the mean (M = 15.19) and the median (Md = 15) for fear of crime, along with its associated skewness value (Table 2), is indicative of normally distributed data (Sharma & Ojha, 2020). Correlation values between each of the predictor variables (PVs) were acceptable (< 0.7), thus assumptions of multicollinearity appear to have been met (Pallant, 2020). Tolerance and VIF values for all PVs were in the acceptable range. The visual distribution of data presented in a residual scatterplot and a Normal Probability Plot also confirmed that the assumptions of linearity, homoscedasticity and normality were met (Osborne & Waters, 2002). The regression model accounted for 21% of the variance in fear of crime levels (F (4, 119) = 7.90, p < .001). In the four PV model, generalized self-efficacy and gender were found to uniquely predict fear of crime to a statistically significant level (see Table 5). Generalized self-efficacy had a higher beta value (β = -.242, p < .01) than gender (β = .234, p <.01). Findings are summarised in Table 5 below.

Table 5

Standard multiple regression model predicting fear of crime, N = 124.

Variable	*R*	R^2	*B*	*SE*	β	*t*	*p*
Model	.458	.210***					
Generalized Self-Efficacy			-.344	.13	-.242**	-2.69	.008
Age			-.047	.03	-.138	-1.53	.130
Gender			2.820	1.07	.234**	2.63	.010
Victimization Status			.448	1.02	.038	.44	.662

Note: * $p < .05$; ** $p < .01$; *** $p < .001$; R^2 = R-squared; B = unstandardized beta value; SE = standard error of B; β = standardized beta value; *t* = significance of individual coefficients

Summary

A moderate, negative, significant correlation was found between generalized self-efficacy and fear of crime. This finding suggests that a higher level of generalized self-efficacy is associated with lower fear of crime levels. A small, negative, significant correlation was found between age and fear of crime. This result suggests that greater age is associated with lower fear of crime levels. Fear of crime was found to be significantly higher for females compared to males. No significant differences in fear of crime were found between victims and non-victims of crime. Age and victimization status failed to predict fear of crime to a statistically significant level. Generalized self-efficacy and gender predicted fear of crime levels to a statistically significant level.

Discussion

This study examined the relationship between self-efficacy and fear of crime in an Irish population. This study also aimed to explore the relationship between fear of crime and the variables gender (Lee et al., 2020; Pryce et al., 2020; Farrall et al., 2021), age (Karakus et al., 2010; Scarborough et al., 2010; Abbott et al., 2020) and victimization status (Parker & Ray, 1990; Frimpong et al., 2018; Han & Connell, 2020), factors which frequently appear in the literature. Specifically, this study sought to identify differences in fear of crime levels between victims and non-victims, as well as differences between male and female Irish citizens. The current study also aimed to identify which of the aforementioned variables would best predict fear of crime levels.

Study findings supported the first hypothesis, which stated that a negative and significant relationship would exist between self-efficacy and fear of crime. A moderate, negative relationship was observed. Therefore, higher levels of self-efficacy are associated with lower levels of fear of crime. The second hypothesis was partially supported. While it was hypothesized that a significant relationship would exist between age and fear of crime, results indicated that it was small and negative, rather than positive in nature. Therefore, greater age is associated with lower fear of crime levels. Results supported the third hypothesis, which stated that females exhibit significantly higher fear of crime levels in comparison to males. Hypothesis four was supported, as no significant differences in fear of crime levels were observed between victims and non-victims of crime. Findings partially supported hypothesis five. Victimization status was not a significant predictor of fear of crime, as was the case with age, which was an unexpected finding. As hypothesized, self-efficacy and gender were significant predictors, with

self-efficacy making the largest unique contribution. The final model accounted for 21% of the variance in fear of crime scores.

The finding of a significant relationship between self-efficacy and fear of crime both supports and contradicts results from previous studies. Gibson et al. (2002) also found a significant relationship, but that study was concerned with collective efficacy, while the current study was concerned with efficacy on an individual level. The current study disputes the findings of Maddison and Jeske (2014), which found that self-efficacy was not a significant predictor of fear of victimization, a slightly different variable compared to fear of crime. While there is limited empirical evidence supporting the relationship between self-efficacy and fear of crime in previous studies, self-efficacy appears to be linked to vulnerability (Jackson, 2004; Jackson, 2009), an important factor in fear of crime research. According to The Vulnerability Hypothesis, self-perception of personal vulnerabilities increases fear of crime (McCrea et al., 2005). Individuals who perceive themselves as being vulnerable, typically have lower self-efficacy levels (Hinkle, 2014). However, as this study utilizes a correlational and cross-sectional study design, causality cannot be inferred. Therefore, future research examining the relationship between self-efficacy and fear of crime should implement a randomized control trial or longitudinal research design.

A negative and significant relationship between age and fear of crime contradicts the findings of many, but not all previous studies. For instance, Ziegler and Mitchell (2003) found younger adults were more fearful than older adults. A previous fear of crime study in Ireland found old age was associated with fear of crime, contradicting the findings of this study (The National Crime Council 2009). Despite being at a lower risk of victimization, older people are generally found to be more fearful of crime than their younger counterparts (Bolger & Bolger,

2018), a positive rather than negative relationship (Jeffords, 1983). Although some studies fail to find a significant relationship between the two variables (Taylor & Covington, 1993; Roh & Oliver, 2005; Shechory-Bitton & Cohen-Louck, 2016). Hanslmaier et al. (2018) believes that age is not as important as perceived vulnerabilities.

The finding that females have significantly higher fear of crime levels compared to males is supportive of the vast majority of the literature (Lee et al., 2020; Pryce et al., 2020; Lytle et al., 2020; Farrall et al., 2021). A previous study in Ireland identified gender as a significant predictor of fear of crime (The National Crime Council 2009). Females are less likely to perceive their environment as safe (Baran et al., 2018), especially in urban areas where they exhibit higher fear of crime levels (Johansson & Haandrikman, 2021). Box et al. (1988) stated that these gender differences diminish with age. A longitudinal study could be implemented to examine these reductions in gender differences.

The absence of a significant difference in fear of crime levels between victims and non-victims of crime is both supportive of some recent studies, but also contradicts most of the literature. Shippee (2012) suggested that victimization might increase the effects of fear, but may also desensitize perceived risks of victimization. Cho and Ho (2018) suggest that chronic exposure to crime may cause desensitization, lowering fears of victimization. Although there are studies which have found victims to be significantly more fearful (Kanan & Pruitt, 2002; Dammert & Malone, 2003; Frimpong et al., 2018; Krulichová, 2018; Han & Connell, 2020), and the experience of victimization may negatively affect their self-efficacy (Mencken et al., 2021). A study in Ireland found previous victimization to be a significant predictor of fear of crime (The National Crime Council 2009).

The finding that self-efficacy is a better predictor of fear of crime than gender is a novel result, as to the researcher's best knowledge, both variables have not been entered into the same model before. Ireland however, was in a minority of European countries where gender wasn't a significant predictor of fear of crime (Reese, 2009), contradicting the findings of the current study. But many studies do identify gender as a significant predictor of fear of crime (Parker & Ray, 1990; Henson & Reyns, 2015; Özaşçılar & Ziyalar, 2015). Individuals cannot control demographic variables, such as age, gender, and to a certain extent, their victimization status. If psychological factors like self -efficacy can be controlled (Peng et al., 2020) and improved (Taylor & Wilson 2019), with evidence to suggest that the relationship is causal following randomized control trials, it could be used as a tool to reduce the fear of crime.

Practical Implications

Findings from this study have practical implications which could bring about policy changes, provide a foundation for future research and potentially lead to the development of a psychologically-based intervention. This study revealed that Irish citizens continue to experience fear of crime, despite a recent fall in crime rates associated with the Covid-19 pandemic (Central Statistics Office, 2021). Given the negative health outcomes associated with fear of crime (Doran & Burgess, 2011; Lorenc et al., 2014; Solymosi et al., 2020), the Irish Government should consider introducing policies which not only aim to reduce criminal activity, but also decrease the fear of crime amongst the Irish population. The National Crime Council (2009), on behalf of The Department of Justice, and in co-operation with An Garda Síochána, have previously published a report assessing the impact of fear of crime on the quality of life of Irish citizens. However, in the 13 years since its release, the report does not appear to have effectively raised public awareness of the fear of crime. Perhaps if An Garda Síochána ran a public campaign

educating the Irish people about the fear of crime and its consequences through public speaking, television and radio appearances, it would be a more effective approach than publishing a report.

Based on the results of this study, and as previously recommended by Hummelsheim et al. (2010), it would be important to include self-efficacy in any policy changes in relation to fear of crime. While this study did not prove the existence of a causal relationship, it still found self-efficacy to be a stronger predictor of fear of crime than gender in an Irish population. Based on the findings of the current study, and since self-efficacy can be improved through vicarious experience (Warner et al., 2011), verbal persuasion (Mellor et al., 2006), performance accomplishments (Zulkosky, 2009) and even self-defence classes (Ball & Martin, 2012), it should be considered a variable of interest in future fear of crime research. Should the existence of a causal relationship be inferred from future longitudinal and randomized control trial studies, self-efficacy could be included as part of a psychologically-based intervention for the fear of crime. While further research is required to see how the development of such an intervention programme could be effectively achieved, findings from this study indicate that psychological variables, such as self-efficacy, should be included in future fear of crime research. As generalized self-efficacy was not measured in an Irish context leading up to the pandemic, comparisons could not be made. However, future post-pandemic studies may refer to the current study for comparative purposes.

Strengths and Limitations

A strength of the current study is that it includes both familiar variables in fear of crime research for comparability and generalizability, as well as a novel variable such as self-efficacy. To the researcher's knowledge, the relationship between fear of crime and a psychological variable, such as self-efficacy, has not previously been explored in an Irish population. Literature investigating the relationship between self-efficacy and fear of crime is scarce. Self-efficacy

significantly predicted fear of crime, making a larger unique contribution than gender in the regression model. The generalized self-efficacy scale (GSES) (Schwarzer and Jerusalem, 1995) and fear of crime scale (FOCS) (Foster et al., 2016) showed good internal consistency for the current study sample, and have been used peer-reviewed studies.

Another strength of this study was the similar sample sizes for victims (n = 57) and non-victims (n = 67) of crime. People tend to overestimate the actual risk of criminal victimization (Ditton, 2000). As stated in The Distribution Theory, the number of people with experiences of victimization is much lower than the number of people who fear crime (Lee, 2018). Both groups were evenly represented in the study, which failed to find a significant difference in fear of crime between victims and non-victims. A fourth strength of the current study was anonymous nature of participation. Anonymous surveys are more suitable when discussing sensitive subjects (Klein et al., 2020), as having their identity hidden encourages participants to more truthful with their responses (Bartneck et al., 2015). The selection of a less graphic fear of crime scale and its 'forgiving language' was a good approach for a self-report measure (Charles & Dattalo, 2018), especially when dealing with a potentially upsetting topic like crime. The lack of financial reward reduced the likelihood of vulnerable participants feeling coerced into answering the survey (Groth, 2010). However, the current study was not without limitations. For example, confounding variables which can affect the results of many studies could not be taken into account due to the nature and structure of the study. Urban/rural settings might be a potential confounder in this case.

The use of a correlational and cross-sectional study design could be considered a limitation as causality cannot be inferred (Liew et al., 2019). In a cross-sectional study design, the direction of associations is not identifiable either (Jacob et al., 2020). Randomized control

trials (Prosperi et al., 2020) or longitudinal studies (Seo et al., 2019) are required to make causal conclusions. The positively skewed data distribution for the variable age was another limitation for the study. Consequently, there were far more young adults compared to elderly participants. This study found age to be negatively correlated with fear of crime. It is widely accepted that a positive relationship exists between age and fear of crime (Jeffords, 1983). If the data for the age variable was normally distributed, with both young adults and the elderly more evenly represented, the current study findings may have reflected the results of previous studies that have examined this relationship.

The current used self-report measures to collect data. Survey respondents often over-report socially desirable behaviours, while under-reporting undesirable ones (Preisendörfer & Wolter, 2014). While socially desirable responding is a conscious process, participants can experience unconscious self-deception, which can also reduce the accuracy of results when collecting data using self-report measures (Hildebrand et al., 2018). Sutton and Farrall, (2004) believe males may purposely report lower fear of crime scores, as it is more socially desirable. The fourth limitation is the FOCS used in this study. While it showed good internal reliability (Foster et al., 2016), it only contains five scoring items. A scale with five scoring items seems inadequate given how difficult it has been to measure the fear of crime historically (Gabriel & Greve, 2003). Furthermore, the FOCS does not include any cybercrimes. With scam calls, cybertheft and online fraud becoming more common (Ch et al., 2020; Fontanilla, 2020), a modern FOCS should reflect the recent changes in criminal behaviour, and include the newer forms of crime that the public are experiencing. Perhaps the development of a more modern and widely used FOCS should be considered in future fear of crime studies.

Conclusion

The current study broadens our knowledge of fear of crime by examining the relationship between fear of crime and self-efficacy. This study also aimed to build on the existing literature surrounding the relationships between fear of crime and the variables of gender, age and victimization status. All variables were subsequently entered into a multiple regression model to identify the strongest predictor for fear of crime. Higher self-efficacy levels and greater age were associated with lower fear of crime levels. Females were significantly more fearful of crime compared to males. No significant difference in fear of crime levels was found between victims and non-victims. The variables self-efficacy and gender were the only significant predictors of fear of crime. Self-efficacy made the largest unique contribution despite many studies recognizing gender as the strongest predictor of fear of crime. Findings highlight the importance of psychological variables, such as self-efficacy in fear of crime research. This study is the first to examine the relationship between self-efficacy and fear of crime in an Irish population. Due to the cross-sectional design of the current study, causation, however, cannot be inferred. Future research should aim to identify whether this relationship is a causal one, and if so, it has the potential to lead to the development of a psychologically-based intervention for fear of crime.

References

Ab Aziz, A., Shabli, A. H. M., & Ghanimi, H. M. A. (2017). Formal specifications and analysis of an agent-based model for cognitive aspects of fear of crime. In S. Phon-Amnuaisuk, S. P. Ang, & S. Y. Lee (Eds.), *Multi-disciplinary Trends in Artificial Intelligence* (Vol. 10607, pp. 331–345). Springer, Cham. https://doi.org/10.1007/978-3-319-69456-6_28

Abbott, J., McGrath, S. A., & May, D. C. (2020). The effects of police effort on victims' fear of crime. *American Journal of Criminal Justice*, *45*(5), 880–898. https://doi.org/10.1007/s12103-020-09523-7

Abdullah, A., Hedayati Marzbali, M., Woolley, H., Bahauddin, A., & Maliki, N. Z. (2013). Testing for individual factors for the fear of crime using a multiple Indicator-Multiple cause model. *European Journal on Criminal Policy and Research*, *20*(1), 1–22. https://doi.org/10.1007/s10610-013-9208-4

Alper, M., & Chappell, A. T. (2012). Untangling fear of crime: A multi-theoretical approach to examining the causes of Crime-Specific fear. *Sociological Spectrum*, *32*(4), 346–363. https://doi.org/10.1080/02732173.2012.664048

Asencio, E. K., Merrill, M., & Steiner, M. (2014). Self-Esteem, the fear of crime, and the decision to protect oneself from victimization. *Sociological Forum*, *29*(3), 587–606. https://doi.org/10.1111/socf.12105

Bailey, C. (2021). Fear of crime among caribbean women in university: A qualitative exploration using the free association narrative method. *Violence Against Women*. https://doi.org/10.1177/10778012211008993

Ball, K., & Martin, J. (2012). Self-defense training and traditional martial arts: Influences on self-efficacy and fear related to sexual victimization. *Sport, Exercise, and Performance Psychology*, *1*(2), 135–144. https://doi.org/10.1037/a0025745

Bandura, A. (1977). Self-efficacy: Toward a unifying theory of behavioral change. *Psychological Review*, *84*(2), 191–215. https://doi.org/10.1037/0033-295x.84.2.191

Bandura, A. (1978). Reflections on self-efficacy. *Advances in Behaviour Research and Therapy*, *1*(4), 237–269. https://doi.org/10.1016/0146-6402(78)90012-7

Bandura, A. (1983). Self-efficacy determinants of anticipated fears and calamities. *Journal of Personality and Social Psychology*, *45*(2), 464–469. https://doi.org/10.1037/0022-3514.45.2.464

Bandura, A. (1984). Recycling misconceptions of perceived self-efficacy. *Cognitive Therapy and Research*, *8*(3), 231–255. https://doi.org/10.1007/bf01172995

Bandura, A. (1988). Self-efficacy conception of anxiety. *Anxiety Research*, *1*(2), 77–98. https://doi.org/10.1080/10615808808248222

Bandura, A. (1990). Perceived self-efficacy in the exercise of personal agency. *Journal of Applied Sport Psychology*, *2*(2), 128–163. https://doi.org/10.1080/10413209008406426

Bandura, A. (1992). Exercise of personal agency through the self-efficacy mechanism. In R. Schwarzer (Ed.), *Self-efficacy: Thought control of action* (pp. 3–38). Hemisphere Publishing Corp.

Bandura, A. (2000a). Exercise of human agency through collective efficacy. *Current Directions in Psychological Science*, *9*(3), 75–78. https://doi.org/10.1111/1467-8721.00064

Bandura, A. (2000b). Self-efficacy: The foundation of agency. In W. J. Perrig & A. Grob (Eds.), *Control of Human Behavior, Mental Processes, and Consciousness: Essays in Honor of the 60th Birthday of August Flammer* (pp. 16–30). Psychology Press.

Bandura, A. (2006). Guide for constructing self-efficacy scales. In T. Urdan & F. Pajares (Eds.), *Self-Efficacy Beliefs of Adolescents* (pp. 307–337). IAP.

Bandura, A. (2011). On the functional properties of perceived self-efficacy revisited. *Journal of Management*, *38*(1), 9–44. https://doi.org/10.1177/0149206311410606

Bandura, A. (2018). Toward a psychology of human agency: Pathways and reflections. *Perspectives on Psychological Science*, *13*(2), 130–136. https://doi.org/10.1177/1745691617699280

Bandura, A., Freeman, W. H., & Lightsey, R. (1999). Self-Efficacy: The exercise of control. *Journal of Cognitive Psychotherapy*, *13*(2), 158–166. https://doi.org/10.1891/0889-8391.13.2.158

Baran, P. K., Tabrizian, P., Zhai, Y., Smith, J. W., & Floyd, M. F. (2018). An exploratory study of perceived safety in a neighborhood park using immersive virtual environments. *Urban Forestry & Urban Greening*, *35*, 72–81. https://doi.org/10.1016/j.ufug.2018.08.009

Barlow, J. H., Williams, B., & Wright, C. (1996). The generalized self-efficacy scale in people with arthritis. *Arthritis Care & Research*, *9*(3), 189–196. https://onlinelibrary.wiley.com/doi/pdf/10.1002/1529-0131%28199606%299%3A3%3C189%3A%3AAID-ANR1790090307%3E3.0.CO%3B2-%23

Bartneck, C., Duenser, A., Moltchanova, E., & Zawieska, K. (2015). Comparing the similarity of responses received from studies in amazon's mechanical turk to studies conducted online and with direct recruitment. *PLOS ONE*, *10*(4), e0121595. https://doi.org/10.1371/journal.pone.0121595

Boateng, F. D., & Adjekum-Boateng, N. S. (2017). Differential perceptions of fear of crime among college students: The race factor. *Journal of Ethnicity in Criminal Justice*, *15*(2), 138–159. https://doi.org/10.1080/15377938.2017.1310683

Boers, K. (2003). Fear of violent crime. In W. Heitmeyer & J. Hagan (Eds.), *International Handbook of Violence Research* (pp. 1131–1149). Springer, Dordrecht. https://doi.org/10.1007/978-0-306-48039-3_58

Bolger, M. A., & Bolger, P. C. (2018). Predicting fear of crime: Results from a community survey of a small city. *American Journal of Criminal Justice*, *44*(2), 334–351. https://doi.org/10.1007/s12103-018-9450-x

Bonsaksen, T., Lerdal, A., Heir, T., Ekeberg, I., Skogstad, L., Grimholt, T. K., & Schou-Bredal, I. (2018). General self-efficacy in the Norwegian population: Differences and similarities between sociodemographic groups. *Scandinavian Journal of Public Health*, *47*(7), 695–704. https://doi.org/10.1177/1403494818756701

Bonsaksen, T., Sadeghi, T., & Thørrisen, M. M. (2017). Associations between self-esteem, general self-efficacy, and approaches to studying in occupational therapy students: A Cross-Sectional study. *Occupational Therapy in Mental Health*, *33*(4), 326–341. https://doi.org/10.1080/0164212x.2017.1295006

Box, S., Hale, C., & Andrews, G. (1988). Explaining fear of crime. *The British Journal of Criminology*, *28*(3), 340–356. https://doi.org/10.1093/oxfordjournals.bjc.a047733

Brady, T. J. (2003). Measures of self-efficacy, helplessness, mastery, and control: The arthritis helplessness index (AHI)/rheumatology attitudes index (RAI), arthritis self-efficacy scale (ASES), children's arthritis self-efficacy scale (CASE), generalized self-efficacy scale (GSES), mastery scale, multi-dimensional health locus of control scale (MHLC), parent's arthritis self-efficacy scale (PASE), rheumatoid arthritis self-efficacy scale (RASE), and self-efficacy scale (SES). *Arthritis & Rheumatism*, *49*(S5), S147–S164. https://doi.org/10.1002/art.11413

Breetzke, G. D., & Pearson, A. L. (2014). The fear factor: Examining the spatial variability of recorded crime on the fear of crime. *Applied Geography*, *46*, 45–52. https://doi.org/10.1016/j.apgeog.2013.10.009

Brooks, J. (1974). The fear of crime in the United States. *Crime & Delinquency*, *20*(3), 241–244. https://doi.org/10.1177/001112877402000303

Brown, B., & Benedict, W. R. (2004). Bullets, blades, and being afraid in Hispanic high schools: An exploratory study of the presence of weapons and fear of weapon-associated victimization among high school students in a border town. *Crime & Delinquency*, *50*(3), 372–394. https://doi.org/10.1177/0011128703254916

Central Statistics Office. (2020, July). *Crime and victimisation 2019*. https://www.cso.ie/en/releasesandpublications/ep/p-cv/crimeandvictimisation2019/perceptionofcrime/

Central Statistics Office. (2021, March). *Recorded crime Q4 2020*. https://www.cso.ie/en/releasesandpublications/ep/p-rc/recordedcrimeq42020/

Ch, R., Gadekallu, T. R., Abidi, M. H., & Al-Ahmari, A. (2020). Computational system to classify cyber crime offenses using machine learning. *Sustainability*, *12*(10), 4087–4103. https://doi.org/10.3390/su12104087

Chadee, D. (2003). Fear of crime and risk of victimization: An ethnic comparison. *Social and Economic Studies*, *52*(1), 73–97. http://www.jstor.org/stable/27865315

Chadee, D., Ali, S., Burke, A., & Young, J. (2017). Fear of crime and community concerns: Mediating effect of risk and pragmatic fear. *Journal of Community & Applied Social Psychology*, *27*(6), 450–462. https://doi.org/10.1002/casp.2326

Chadee, D., & Ng Ying, N. K. (2013). Predictors of fear of crime: General fear versus perceived risk. *Journal of Applied Social Psychology*, *43*(9), 1896–1904. https://doi.org/10.1111/jasp.12207

Chadee, D., Ng Ying, N. K., Chadee, M., & Heath, L. (2016). Fear of crime: The influence of general fear, risk, and time perspective. *Journal of Interpersonal Violence*, *34*(6), 1224–1246. https://doi.org/10.1177/0886260516650970

Charles, J. L., & V. Dattalo, P. (2018). Minimizing social desirability bias in measuring sensitive topics: The use of forgiving language in item development. *Journal of Social Service Research*, *44*(4), 587–599. https://doi.org/10.1080/01488376.2018.1479335

Chataway, M., & Bourke, A. (2020). Fear of crime, disorder, and quality of life. In K. M. Lersch & J. Chakraborty (Eds.), *Geographies of Behavioural Health, Crime, and Disorder* (Vol. 126, pp. 137–163). Springer, Cham. https://doi.org/10.1007/978-3-030-33467-3_7

Chen, G., Gully, S. M., & Eden, D. (2001). Validation of a new general self-efficacy scale. *Organizational Research Methods*, *4*(1), 62–83. https://doi.org/10.1177/109442810141004

Cherenack, E. M., Sikkema, K. J., Watt, M. H., Hansen, N. B., & Wilson, P. A. (2018). Avoidant coping mediates the relationship between self-efficacy for HIV disclosure and depression symptoms among men who have sex with men newly diagnosed with HIV. *AIDS and Behavior*, *22*(10), 3130–3140. https://doi.org/10.1007/s10461-018-2036-2

Cho, J. T., & Park, J. (2017). Exploring the effects of CCTV upon fear of crime: A multi-level approach in Seoul. *International Journal of Law, Crime and Justice*, *49*, 35–45. https://doi.org/10.1016/j.ijlcj.2017.01.005

Cho, W., & Ho, A. T. (2018). Does neighborhood crime matter? A multi-year survey study on perceptions of race, victimization, and public safety. *International Journal of Law, Crime and Justice*, *55*, 13–26. https://doi.org/10.1016/j.ijlcj.2018.08.002

Choi, J., Yim, H., & Lee, D. R. (2019). An examination of the shadow of sexual assault hypothesis among men and women in South Korea. *International Criminal Justice Review*, *30*(4), 386–405. https://doi.org/10.1177/1057567719873964

Clemente, F., & Kleiman, M. B. (1977). Fear of crime in the United States: A multivariate analysis. *Social Forces*, *56*(2), 519–531. https://doi.org/10.2307/2577738

Cohen, J. (1988). *Statistical power analysis for the behavioral sciences* (2nd ed.). Routledge.

Conroy, S., & Cotter, A. (2017). Self-reported sexual assault in Canada, 2014. *Juristat: Canadian Centre for Justice Statistics*, 1–34. http://tld-documents.llnassets.com.s3.amazonaws.com/0004000/4224/self-reported%20sexual%20assault%20in%20canada%202014.pdf

Cossman, J. S., & Rader, N. E. (2011). Fear of crime and personal vulnerability: Examining self-reported health. *Sociological Spectrum*, *31*(2), 141–162. https://doi.org/10.1080/02732173.2011.541339

Covington, J., & Taylor, R. B. (1991). Fear of crime in urban residential neighborhoods: Implications of between- and within-Neighborhood sources for current models. *The Sociological Quarterly*, *32*(2), 231–249. https://doi.org/10.1111/j.1533-8525.1991.tb00355.x

Crowl, J. N., & Battin, J. R. (2016). Fear of crime and the police: Exploring lifestyle and individual determinants among university students. *The Police Journal: Theory, Practice and Principles*, *90*(3), 195–214. https://doi.org/10.1177/0032258x16676289

Curtis, E. A., Comiskey, C., & Dempsey, O. (2016). Importance and use of correlational research. *Nurse Researcher*, *23*(6), 20–25. https://doi.org/10.7748/nr.2016.e1382

Damásio, B. F., Valentini, F., Núñes-Rodriguez, S. I., Kliem, S., Koller, S. H., Hinz, A., Brähler, E., Finck, C., & Zenger, M. (2016). Is the general self-efficacy scale a reliable measure to be used in cross-cultural studies? Results from Brazil, Germany and Colombia. *The Spanish Journal of Psychology*, *19*. https://doi.org/10.1017/sjp.2016.30

Dammert, L., & Malone, M. F. T. (2003). Fear of crime or fear of life? Public insecurities in Chile. *Bulletin of Latin American Research*, *22*(1), 79–101. https://doi.org/10.1111/1470-9856.00065

de Donder, L., Verté, D., & Messelis, E. (2005). Fear of crime and elderly people: Key factors that determine fear of crime among elderly people in west flanders. *Ageing International*, *30*(4), 363–376. https://doi.org/10.1007/s12126-005-1021-z

del Frate, A. A., Zvekic, U., & van Djik, J. J. (1993). *Understanding crime: Experiences of crime and crime control*. Rome: Unicri. https://www.ojp.gov/ncjrs/virtual-library/abstracts/understanding-crime-experiences-crime-and-crime-control

Department of Justice, Equality and Law Reform. (2009, April). *Fear of crime in Ireland and its impact on quality of life*. http://www.justice.ie/en/JELR/Fear%20of%20Crime%20in%20Ireland.pdf/Files/Fear%20of%20Crime%20in%20Ireland.pdf

Ditton, J. (2000). Crime and the city. *British Journal of Criminology*, *40*(4), 692–709. https://doi.org/10.1093/bjc/40.4.692

Ditton, J., Farrall, S., Bannister, J., Gilchrist, E., Garwood, J., Rogerson, M., & Pease, K. (1998). Measuring fear of crime. *Criminal Justice Matters*, *31*(1), 10–13. https://doi.org/10.1080/09627259808552755

Donnelly, P. G. (1989). Individual and neighborhood influences on fear of crime. *Sociological Focus*, *22*(1), 69–85. https://www.jstor.org/stable/20831499

Doran, B. J., & Burgess, M. B. (2011). *Putting fear of crime on the map: Investigating perceptions of crime using geographic information systems (springer series on Evidence-Based crime policy)* (illustrated ed.). Springer Science & Business Media.

Elchardus, M., de Groof, S., & Smits, W. (2008). Rational fear or represented malaise: A crucial test of two paradigms explaining fear of crime. *Sociological Perspectives*, *51*(3), 453–471. https://doi.org/10.1525/sop.2008.51.3.453

Ellis, D. A., & Renouf, K. J. (2017). Predicting fear of crime: personality outperforms prior victimisation. *The Journal of Forensic Psychiatry & Psychology*, *29*(3), 403–418. https://doi.org/10.1080/14789949.2017.1410562

Erčulj, V. (2021). The 'Young and the fearless': Revisiting the conceptualisation of fear of crime. *Quality & Quantity*, 1–16. https://doi.org/10.1007/s11135-021-01171-1

European Commission. (2021, September). *Crime statistics (2017–2019)*. Eurostat. https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Crime_statistics

Farrall, S. D., Jackson, J., & Gray, E. (2009). *Social order and the fear of crime in contemporary times*. OUP Oxford.

Farrall, S., Gray, E., & Jones, P. M. (2021). Worrying times: The fear of crime and nostalgia. *Current Issues in Criminal Justice*, *33*(3), 340–358. https://doi.org/10.1080/10345329.2021.1879414

Farrell, G., Tseloni, A., Mailley, J., & Tilley, N. (2011). The crime drop and the security hypothesis. *Journal of Research in Crime and Delinquency*, *48*(2), 147–175. https://doi.org/10.1177/0022427810391539

Fattah, E. A., & Sacco, V. F. (1989). *Crime and victimization of the elderly*. Amsterdam University Press.

Faul, F., Erdfelder, E., Buchner, A., & Lang, A. G. (2009). Statistical power analyses using G*Power 3.1: Tests for correlation and regression analyses. *Behavior Research Methods*, *41*(4), 1149–1160. https://doi.org/10.3758/brm.41.4.1149

Faul, F., Erdfelder, E., Lang, A. G., & Buchner, A. (2007). G*Power 3: A flexible statistical power analysis program for the social, behavioral, and biomedical sciences. *Behavior Research Methods*, *39*(2), 175–191. https://doi.org/10.3758/bf03193146

Ferraro, K. F. (1995). *Fear of crime: Interpreting victimization risk (suny series in new directions in crime and justice studies)* (1st ed.). State University of New York Press. https://books.google.ie/books?id=98Mq8xQy0cAC&lr=lang_en&source=gbs_navlinks_s

Ferraro, K. F. (1996). Women's fear of victimization: Shadow of sexual assault? *Social Forces*, *75*(2), 667–690. https://doi.org/10.2307/2580418

Ferraro, K. F., & Grange, R. L. (1987). The measurement of fear of crime. *Sociological Inquiry*, *57*(1), 70–97. https://doi.org/10.1111/j.1475-682x.1987.tb01181.x

Firth, A. M., Cavallini, I., Sütterlin, S., & Lugo, R. G. (2019). Mindfulness and self-efficacy in pain perception, stress and academic performance. The influence of mindfulness on cognitive processes. *Psychology Research and Behavior Management*, *12*, 565–574. https://doi.org/10.2147/prbm.s206666

Fisher, B. S., & Sloan, J. J. (2003). Unraveling the fear of victimization among college women: Is the "shadow of sexual assault hypothesis" supported? *Justice Quarterly*, *20*(3), 633–659. https://doi.org/10.1080/07418820300095641

Fontanilla, M. V. (2020). Cybercrime pandemic. *Eubios Journal of Asian and International Bioethics*, *30*(4), 161–165. https://www.eubios.info/EJAIB52020.pdf#page=33

Foster, S., Hooper, P., Knuiman, M., & Giles-Corti, B. (2016). Does heightened fear of crime lead to poorer mental health in new suburbs, or vice versa? *Social Science & Medicine*, *168*, 30–34. https://doi.org/10.1016/j.socscimed.2016.09.004

Foster, S., Knuiman, M., Hooper, P., Christian, H., & Giles-Corti, B. (2014). Do changes in residents' fear of crime impact their walking? Longitudinal results from RESIDE. *Preventive Medicine*, *62*, 161–166. https://doi.org/10.1016/j.ypmed.2014.02.011

Franc, R., & Sucic, I. (2014). Fear of crime. *Encyclopedia of Quality of Life and Well-Being Research*, 2221–2224. https://doi.org/10.1007/978-94-007-0753-5_1021

Franklin, T. W., Franklin, C. A., & Fearn, N. E. (2008). A multilevel analysis of the vulnerability, disorder, and social integration models of fear of crime. *Social Justice Research*, *21*(2), 204–227. https://doi.org/10.1007/s11211-008-0069-9

Freundschuh, A. (2006). 'new sport' in the street: Self-defence, security and space in belle epoque paris. *French History*, *20*(4), 424–441. https://doi.org/10.1093/fh/crl026

Frimpong, L. K., Oteng-Ababio, M., Owusu, G., & Wrigley-Asante, C. (2018). Collective efficacy and fear of crime in urban neighbourhoods in Ghana. *Safer Communities*, *17*(3), 167–181. https://doi.org/10.1108/sc-06-2017-0024

Gabriel, U., & Greve, W. (2003). The psychology of fear of Crime. Conceptual and methodological perspectives. *British Journal of Criminology*, *43*(3), 600–614. https://doi.org/10.1093/bjc/43.3.600

Garofalo, J. (1981). The fear of crime: Causes and consequences. *The Journal of Criminal Law and Criminology (1973-)*, *72*(2), 839–857. https://doi.org/10.2307/1143018

Gibson, C. L., Zhao, J., Lovrich, N. P., & Gaffney, M. J. (2002). Social integration, individual perceptions of collective efficacy, and fear of crime in three cities. *Justice Quarterly*, *19*(3), 537–564. https://doi.org/10.1080/07418820200095341

Gray, E., Jackson, J., & Farrall, S. (2010). Feelings and functions in the fear of crime: Applying a new approach to victimisation insecurity. *British Journal of Criminology*, *51*(1), 75–94. https://doi.org/10.1093/bjc/azq066

Gray, E., Jackson, J., & Farrall, S. (2011). In search of the fear of crime: Using interdisciplinary insights to improve the conceptualisation and measurement of everyday insecurities. *SSRN Electronic Journal*, 1–18. https://doi.org/10.2139/ssrn.1799251

Greve, W. (1998). Fear of crime among the elderly: Foresight, not fright. *International Review of Victimology*, *5*(3–4), 277–309. https://doi.org/10.1177/026975809800500405

Groth, S. W. (2010). Honorarium or coercion: Use of incentives for participants in clinical research. *The Journal of the New York State Nurses' Association*, *41*(1), 11–22. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3646546/

Guedes, I. M. E. S., Domingos, S. P. A., & Cardoso, C. S. (2018). Fear of crime, personality and trait emotions: An empirical study. *European Journal of Criminology*, *15*(6), 658–679. https://doi.org/10.1177/1477370817749500

Hale, C. (1996). Fear of crime: A review of the literature. *International Review of Victimology*, *4*(2), 79–150. https://doi.org/10.1177/026975809600400201

Hamby, T., & Levine, D. S. (2015). Response-Scale formats and psychological distances between categories. *Applied Psychological Measurement*, *40*(1), 73–75. https://doi.org/10.1177/0146621615597961

Han, S., & Connell, N. M. (2020). The effects of school police officers on victimization, delinquency, and fear of crime: Focusing on Korean youth. *International Journal of Offender Therapy and Comparative Criminology*, *65*(12), 1356–1372. https://doi.org/10.1177/0306624x20946933

Hanslmaier, M., Peter, A., & Kaiser, B. (2018). Vulnerability and fear of crime among elderly citizens: What roles do neighborhood and health play? *Journal of Housing and the Built Environment*, *33*(4), 575–590. https://doi.org/10.1007/s10901-018-9626-1

Hartzel, K. (2003). How self-efficacy and gender issues affect software adoption and use. *Communications of the ACM*, *46*(9), 167–171. https://doi.org/10.1145/903893.903933

Henson, B., & Reyns, B. W. (2015). The only thing we have to fear is fear itself. . .and crime: The current state of the fear of crime literature and where it should go next. *Sociology Compass*, *9*(2), 91–103. https://doi.org/10.1111/soc4.12240

Hickey, N., McCrory, E., Farmer, E., & Vizard, E. (2008). Comparing the developmental and behavioural characteristics of female and male juveniles who present with sexually abusive behaviour. *Journal of Sexual Aggression*, *14*(3), 241–252. https://doi.org/10.1080/13552600802389793

Hildebrand, M., Wibbelink, C. J., & Verschuere, B. (2018). Do impression management and self-deception distort self-report measures with content of dynamic risk factors in

offender samples? A meta-analytic review. *International Journal of Law and Psychiatry*, *58*, 157–170. https://doi.org/10.1016/j.ijlp.2018.02.013

Hilinski, C. M. (2008). Fear of crime among college students: A test of the shadow of sexual assault hypothesis. *American Journal of Criminal Justice*, *34*(1–2), 84–102. https://doi.org/10.1007/s12103-008-9047-x

Hinkle, J. C. (2014). Emotional fear of crime vs. Perceived safety and risk: Implications for measuring "Fear" and testing the broken windows thesis. *American Journal of Criminal Justice*, *40*(1), 147–168. https://doi.org/10.1007/s12103-014-9243-9

Hodgkinson, T., & Lunney, K. (2021). Across the wide prairie: Exploring fear of crime in a small Canadian municipality. *Journal of Criminology*, *54*(2), 109–125. https://doi.org/10.1177/0004865821999082

Huang, C. (2012). Gender differences in academic self-efficacy: A meta-analysis. *European Journal of Psychology of Education*, *28*(1), 1–35. https://doi.org/10.1007/s10212-011-0097-y

Hummelsheim, D., Hirtenlehner, H., Jackson, J., & Oberwittler, D. (2010). Social insecurities and fear of crime: A cross-national study on the impact of welfare state policies on crime-related anxieties. *European Sociological Review*, *27*(3), 327–345. https://doi.org/10.1093/esr/jcq010

Jackson, J. (2004). Experience and expression: Social and cultural significance in the fear of crime. *British Journal of Criminology*, *44*(6), 946–966. https://doi.org/10.1093/bjc/azh048

Jackson, J. (2006). Introducing fear of crime to risk research. *Risk Analysis*, *26*(1), 253–264. https://doi.org/10.1111/j.1539-6924.2006.00715.x

Jackson, J. (2009). A psychological perspective on vulnerability in the fear of crime. *Psychology, Crime & Law*, *15*(4), 365–390. https://doi.org/10.1080/10683160802275797

Jackson, J., Farrall, S., Hough, M., & Bradford, B. (2008). Public insecurities about crime: A review of the British research literature. *SSRN Electronic Journal*, 1–18. https://doi.org/10.2139/ssrn.1303610

Jacob, L., Tully, M. A., Barnett, Y., Lopez-Sanchez, G. F., Butler, L., Schuch, F., López-Bueno, R., McDermott, D., Firth, J., Grabovac, I., Yakkundi, A., Armstrong, N., Young, T., & Smith, L. (2020). The relationship between physical activity and mental health in a sample of the UK public: A cross-sectional study during the implementation of COVID-19 social distancing measures. *Mental Health and Physical Activity*, *19*, 100345. https://doi.org/10.1016/j.mhpa.2020.100345

Jeffords, C. R. (1983). The situational relationship between age and the fear of crime. *The International Journal of Aging and Human Development*, *17*(2), 103–111. https://doi.org/10.2190/nwyg-p7bj-qlww-996p

Johansson, S., & Haandrikman, K. (2021). Gendered fear of crime in the urban context: A comparative multilevel study of women's and men's fear of crime. *Journal of Urban Affairs*, 1–27. https://doi.org/10.1080/07352166.2021.1923372

Kallmen, H. (2000). Manifest anxiety, general self-efficacy and locus of control as determinants of personal and general risk perception. *Journal of Risk Research*, *3*(2), 111–120. https://doi.org/10.1080/136698700376626

Kanan, J. W., & Pruitt, M. V. (2002). Modeling fear of crime and perceived victimization risk: The (in)significance of neighborhood integration. *Sociological Inquiry*, *72*(4), 527–548. https://doi.org/10.1111/1475-682x.00033

Karakus, O., McGarrell, E. F., & Basibuyuk, O. (2010). Fear of crime among citizens of Turkey. *Journal of Criminal Justice*, *38*(2), 174–184. https://doi.org/10.1016/j.jcrimjus.2010.02.006

Karl, K. A., O'Leary-Kelly, A. M., & Martocchio, J. J. (1993). The impact of feedback and self-efficacy on performance in training. *Journal of Organizational Behavior*, *14*(4), 379–394. https://doi.org/10.1002/job.4030140409

Kavanagh, D. J., & Bower, G. H. (1985). Mood and self-efficacy: Impact of joy and sadness on perceived capabilities. *Cognitive Therapy and Research*, *9*(5), 507–525. https://doi.org/10.1007/bf01173005

Keren, G., & Lewis, C. (2014). Between-or within-subjects design: A methodological dilemma. In *A Handbook for Data Analysis in the Behaviorial Sciences: Volume 1: Methodological Issues Volume 2: Statistical Issues* (pp. 257–272). Psychology Press.

Klein, J. W., Tyler-parker, G., & Bastian, B. (2020). Measuring psychological distress among Australians using an online survey. *Australian Journal of Psychology*, *72*(3), 276–282. https://doi.org/10.1111/ajpy.12283

Köber, G., Oberwittler, D., & Wickes, R. (2020). Old age and fear of crime: Cross-national evidence for a decreased impact of neighbourhood disadvantage in older age. *Ageing and Society*, 1–30. https://doi.org/10.1017/s0144686x20001683

Koeber, G., & Oberwittler, D. (2019). How older people became less afraid of crime—An age-period-cohort analysis using repeated cross-sectional survey data. *Social Science Research*, *79*, 211–225. https://doi.org/10.1016/j.ssresearch.2018.10.010

Krahn, H., & Kennedy, L. W. (1985). Producing personal safety: The effects of crime rates, police force size, and fear of crime. *Criminology*, *23*(4), 697–710. https://doi.org/10.1111/j.1745-9125.1985.tb00370.x

Krulichová, E. (2018). The relationship between fear of crime and risk perception across Europe. *Criminology & Criminal Justice*, *19*(2), 197–214. https://doi.org/10.1177/1748895818757832

Kujala, P. (2021). Gendered feelings of unsafety and avoidance of local central areas in Finland 2001–2016. *Nordic Journal of Criminology*, 1–21. https://doi.org/10.1080/2578983x.2021.1950466

LaGrange, R. L., & Ferraro, K. F. (1987). The elderly's fear of crime. *Research on Aging*, *9*(3), 372–391. https://doi.org/10.1177/0164027587093003

LaGrange, R. L., & Ferraro, K. F. (1989). Assessing age and gender differences in perceived risk and fear of crime. *Criminology*, *27*(4), 697–720. https://doi.org/10.1111/j.1745-9125.1989.tb01051.x

Lee, D. R. (2018). Fear of crime and perceived risk. In C. M. Hilinski-Rosick & D. R. Lee (Eds.), *Contemporary Issues in Victimology: Identifying Patterns and Trends* (pp. 245–264). Lexington Books.

Lee, H. D., Reyns, B. W., Kim, D., & Maher, C. (2020). Fear of crime out west: Determinants of fear of property and violent crime in five states. *International Journal of Offender Therapy and Comparative Criminology*, *64*(12), 1299–1316. https://doi.org/10.1177/0306624x20909238

Lee, H. D., Reyns, B. W., Maher, C., & Kim, D. (2022). Fear of sexual assault for oneself and others: A gendered perspective from five states. *International Journal of Law, Crime and Justice*, *68*, 100521. https://doi.org/10.1016/j.ijlcj.2021.100521

Lee, L. L., Arthur, A., & Avis, M. (2008). Using self-efficacy theory to develop interventions that help older people overcome psychological barriers to physical activity: A discussion paper. *International Journal of Nursing Studies*, *45*(11), 1690–1699. https://doi.org/10.1016/j.ijnurstu.2008.02.012

Leganger, A., Kraft, P., & Roysamb, E. (2000). Perceived self-efficacy in health behaviour research: Conceptualisation, measurement and correlates. *Psychology & Health*, *15*(1), 51–69. https://doi.org/10.1080/08870440008400288

Lent, R. W., & Brown, S. D. (1996). Applying social cognitive theory to career counseling: An introduction. *The Career Development Quarterly*, *44*(4), 307–309. https://doi.org/10.1002/j.2161-0045.1996.tb00447.x

Leung, D. Y., & Leung, A. Y. (2010). Factor structure and gender invariance of the chinese general Self-Efficacy scale among soon-to-be-aged adults. *Journal of Advanced Nursing*, *67*(6), 1383–1392. https://doi.org/10.1111/j.1365-2648.2010.05529.x

Liew, S. J., Lee, J. T., Tan, C. S., Koh, C. H. G., van Dam, R., & Müller-Riemenschneider, F. (2019). Sociodemographic factors in relation to hypertension prevalence, awareness, treatment and control in a multi-ethnic Asian population: A cross-sectional study. *BMJ Open*, *9*(5), e025869. https://doi.org/10.1136/bmjopen-2018-025869

Lindesay, J. (1997). Phobic disorders and fear of crime in the elderly. *Aging & Mental Health*, *1*(1), 81–86. https://doi.org/10.1080/13607869757416

Liska, A. E., Lawrence, J. J., & Sanchirico, A. (1982). Fear of crime as a social fact. *Social Forces*, *60*(3), 760–770. https://doi.org/10.2307/2578391

Lorenc, T., Petticrew, M., Whitehead, M., Neary, D., Clayton, S., Wright, K., Thomson, H., Cummins, S., Sowden, A., & Renton, A. (2014). Crime, fear of crime and mental health: Synthesis of theory and systematic reviews of interventions and qualitative evidence. *Public Health Research*, *2*(2), 1–398. https://doi.org/10.3310/phr02020

Löve, J., Moore, C. D., & Hensing, G. (2011). Validation of the Swedish translation of the general self-efficacy scale. *Quality of Life Research*, *21*(7), 1249–1253. https://doi.org/10.1007/s11136-011-0030-5

Lu, Y., Amory, K., & Shi, L. (2021). Social change and gendered reaction to the threat of victimization, 1973–2016: An age-period-Cohort analysis. *The Sociological Quarterly*, 1–27. https://doi.org/10.1080/00380253.2021.1945978

Lytle, D., Intravia, J., & Randa, R. (2020). An understudied population? Exploring the factors associated with fear of crime in a semi-rural environment. *Deviant Behavior*, *43*(2), 179–195. https://doi.org/10.1080/01639625.2020.1793544

Madden, M. E. (1995). Perceived vulnerability and control of martial arts and physical fitness students. *Perceptual and Motor Skills*, *80*(3), 899–910. https://doi.org/10.2466/pms.1995.80.3.899

Maddison, J., & Jeske, D. (2014). Fear and perceived likelihood of victimization in traditional and cyber settings. *International Journal of Cyber Behavior, Psychology and Learning*, *4*(4), 23–40. https://doi.org/10.4018/ijcbpl.2014100103

Maier, S. L., & DePrince, B. T. (2019). College students' fear of crime and perception of safety: The influence of personal and university prevention measures. *Journal of Criminal Justice Education*, *31*(1), 63–81. https://doi.org/10.1080/10511253.2019.1656757

Markowitz, F. E., Bellair, P. E., Liska, A. E., & Liu, J. (2001). Extending social disorganization theory: Modeling the relationships between cohesion, disorder, and fear. *Criminology*, *39*(2), 293–319. https://doi.org/10.1111/j.1745-9125.2001.tb00924.x

Mawby, R. I., Özaşçılar, M., & Ziyalar, N. (2019). Perceptions of safety confronted by experience: How visitors to Istanbul modified their perceptions of risk and fear in the light of personal experience. *International Review of Victimology*, *26*(3), 261–275. https://doi.org/10.1177/0269758019864726

McCoy, H., Wooldredge, J. D., Cullen, F. T., Dubeck, P. J., & Browning, S. L. (1996). Lifestyles of the old and not so fearful: Life situation and older persons' fear of crime. *Journal of Criminal Justice*, *24*(3), 191–205. https://doi.org/10.1016/0047-2352(96)00005-0

McCrea, R., Shyy, T. K., Western, J., & Stimson, R. J. (2005). Fear of crime in Brisbane: Individual, social and neighbourhood factors in perspective. *Journal of Sociology*, *41*(1), 7–27. https://doi.org/10.1177/1440783305048381

McDaniel, P. (1993). Self-defense training and women's fear of crime. *Women's Studies International Forum*, *16*(1), 37–45. https://doi.org/10.1016/0277-5395(93)90078-n

Mellgren, C., & Ivert, A. K. (2018). Is women's fear of crime fear of sexual assault? A test of the shadow of sexual assault hypothesis in a sample of swedish university students. *Violence Against Women*, *25*(5), 511–527. https://doi.org/10.1177/1077801218793226

Mellor, S., Barclay, L. A., Bulger, C. A., & Kath, L. M. (2006). Augmenting the effect of verbal persuasion on self-efficacy to serve as a steward: Gender similarity in a union

environment. *Journal of Occupational and Organizational Psychology*, *79*(1), 121–129. https://doi.org/10.1348/096317905x36353

Mencken, F. C., Bader, C. D., & Day, L. E. (2021). Fear of crime on community engagement: Nonadditive and nonlinear effects by gender. *The Sociological Quarterly*, 1–21. https://doi.org/10.1080/00380253.2020.1850189

Menzies, R. E., & Menzies, R. G. (2020). Death anxiety in the time of COVID-19: Theoretical explanations and clinical implications. *The Cognitive Behaviour Therapist*, *13*, 1–24. https://doi.org/10.1017/s1754470x20000215

Moors, G., Kieruj, N. D., & Vermunt, J. K. (2014). The effect of labeling and numbering of response scales on the likelihood of response bias. *Sociological Methodology*, *44*(1), 369–399. https://doi.org/10.1177/0081175013516114

National College of Ireland. (2018, February). *Ethical guidelines and procedures for research involving human participants*. https://mymoodle.ncirl.ie/pluginfile.php/130027/mod_resource/content/1/NCI%20Ethics%20Revised%20Feb%202018.pdf

National Crime Council. (2009, April). *Fear of crime in Ireland and its impact on quality of life*. Department of Justice, Equality and Law Reform. https://www.justice.ie/en/JELR/Fear%20of%20Crime%20in%20Ireland.pdf/Files/Fear%20of%20Crime%20in%20Ireland.pdf

Ngo, Q. M., Veliz, P. T., Kusunoki, Y., Stein, S. F., & Boyd, C. J. (2018). Adolescent sexual violence: Prevalence, adolescent risks, and violence characteristics. *Preventive Medicine*, *116*, 68–74. https://doi.org/10.1016/j.ypmed.2018.08.032

Noack-Lundberg, K., Liamputtong, P., Marjadi, B., Ussher, J., Perz, J., Schmied, V., Dune, T., & Brook, E. (2019). Sexual violence and safety: The narratives of transwomen in online forums. *Culture, Health & Sexuality*, *22*(6), 646–659. https://doi.org/10.1080/13691058.2019.1627420

Ollenburger, J. C. (1981). Criminal victimization and fear of crime. *Research on Aging*, *3*(1), 101–118. https://doi.org/10.1177/016402758131004

Osborne, J. W., & Waters, E. (2002). Four assumptions of multiple regression that researchers should always test. *Practical Assessment, Research, and Evaluation*, *8*(1), 1–6. https://doi.org/10.7275/r222-hv23

Özascilar, M. (2013). Predicting fear of crime: A test of the shadow of sexual assault hypothesis. *International Review of Victimology*, *19*(3), 269–284. https://doi.org/10.1177/0269758013492754

Özaşçılar, M., & Ziyalar, N. (2015). Unraveling the determinants of fear of crime among men and women in Istanbul: Examining the impact of perceived risk and fear of sexual assault. *International Journal of Offender Therapy and Comparative Criminology*, *61*(9), 993–1010. https://doi.org/10.1177/0306624x15613334

Pallant, J. (2020). *SPSS survival manual: A step by step guide to data analysis using IBM SPSS* (7th ed.). Open University Press.

Parker, K. D., & Ray, M. C. (1990). Fear of crime: An assessment of related factors. *Sociological Spectrum*, *10*(1), 29–40. https://doi.org/10.1080/02732173.1990.9981910

Pease, K., & Ignatans, D. (2016). The global crime drop and changes in the distribution of victimisation. *Crime Science*, *5*(1). https://doi.org/10.1186/s40163-016-0059-4

Peng, L., Tan, J., Deng, W., & Liu, Y. (2020). Farmers' participation in community-based disaster management: The role of trust, place attachment and self-efficacy. *International Journal of Disaster Risk Reduction*, *51*, 101895. https://doi.org/10.1016/j.ijdrr.2020.101895

Phelan, J. E., Sanchez, D. T., & Broccoli, T. L. (2009). The danger in sexism: The links among fear of crime, benevolent sexism, and well-being. *Sex Roles*, *62*(1–2), 35–47. https://doi.org/10.1007/s11199-009-9711-8

Piscitelli, A., & Perrella, A. M. (2017). Fear of crime and participation in associational life. *The Social Science Journal*, *54*(2), 179–190. https://doi.org/10.1016/j.soscij.2017.01.001

Pleggenkuhle, B., & Schafer, J. A. (2017). Fear of crime among residents of rural counties: an analysis by gender. *Journal of Crime and Justice*, *41*(4), 382–397. https://doi.org/10.1080/0735648x.2017.1391109

Porter, J. R., Rader, N. E., & Cossman, J. S. (2011). Social disorganization and neighborhood fear: Examining the intersection of individual, community, and county characteristics. *American Journal of Criminal Justice*, *37*(2), 229–245. https://doi.org/10.1007/s12103-011-9125-3

Preisendörfer, P., & Wolter, F. (2014). Who is telling the truth? A validation study on determinants of response behavior in surveys. *Public Opinion Quarterly*, *78*(1), 126–146. https://doi.org/10.1093/poq/nft079

Prieto Curiel, R., & Bishop, S. R. (2018). Fear of crime: The impact of different distributions of victimisation. *Palgrave Communications*, *4*(1), 1–8. https://doi.org/10.1057/s41599-018-0094-8

Prosperi, M., Guo, Y., Sperrin, M., Koopman, J. S., Min, J. S., He, X., Rich, S., Wang, M., Buchan, I. E., & Bian, J. (2020). Causal inference and counterfactual prediction in machine learning for actionable healthcare. *Nature Machine Intelligence*, *2*(7), 369–375. https://doi.org/10.1038/s42256-020-0197-y

Pryce, D. K., Fuller, K., Brown, R. A., & VanEaton, T. (2020). Examining the relationship between citizen contact with the community prosecutor and fear of crime. *Victims & Offenders*, *15*(5), 574–593. https://doi.org/10.1080/15564886.2020.1754312

Pryce, D. K., Wilson, G., & Fuller, K. (2018). Gender, age, crime victimization, and fear of crime: Findings from a sample of Kenyan college students. *Security Journal*, *31*(4), 821–840. https://doi.org/10.1057/s41284-018-0134-5

Pytlarz, A., & Bowden, M. (2019). 'Crime-Talk', security and fear in the countryside: A preliminary study of a rural Irish town and its hinterland. *International Journal of Rural Criminology*, *4*(2), 138–172. https://doi.org/10.18061/1811/87912

Rader, N. (2017). Fear of crime. *Oxford Research Encyclopedia of Criminology and Criminal Justice*. https://doi.org/10.1093/acrefore/9780190264079.013.10

Rader, N. E., Rogers, S. A., & Cossman, J. S. (2019). Physical health, mental health, and fear of crime among college students: A consideration of sex differences. *Violence Against Women*, *26*(1), 3–23. https://doi.org/10.1177/1077801219826749

Raeder, F., Karbach, L., Struwe, H., Margraf, J., & Zlomuzica, A. (2019). Low perceived self-efficacy impedes discriminative fear learning. *Frontiers in Psychology*, *10*. https://doi.org/10.3389/fpsyg.2019.01191

Ranzijn, R., Howells, K., & Wagstaff, V. (2002). Fear of crime and protective behaviours in older and younger adults: Results of a community survey. *Australasian Journal on Ageing*, *21*(2), 92–97. https://doi.org/10.1111/j.1741-6612.2002.tb00424.x

Reese, B. (2009). Determinants of the fear of crime: The combined effects of country-level crime intensity and individual-level victimization experience. *International Journal of Sociology*, *39*(1), 62–75. https://doi.org/10.2753/ijs0020-7659390104

Reid, L. W., & 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

Roberts, B., & Gordon, S. (2016). Pulling us apart? The association between fear of crime and social cohesion in south africa. *SA Crime Quarterly*, *55*, 49–60. https://doi.org/10.17159/2413-3108/2016/v0n55a390

Robinson, J. B., Lawton, B. A., Taylor, R. B., & Perkins, D. D. (2003). Multilevel longitudinal impacts of incivilities: Fear of crime, expected safety, and block satisfaction. *Journal of Quantitative Criminology*, *19*(3), 237–274. https://doi.org/10.1023/a:1024956925170

Robinson, M. A. (2017). Using multi-item psychometric scales for research and practice in human resource management. *Human Resource Management*, *57*(3), 739–750. https://doi.org/10.1002/hrm.21852

Roh, S., & Oliver, W. M. (2005). Effects of community policing upon fear of crime. *Policing: An International Journal of Police Strategies & Management*, *28*(4), 670–683. https://doi.org/10.1108/13639510510628758

Ropeik, D. (2004). The consequences of fear. *EMBO Reports*, *5*(S1), 1–5. https://doi.org/10.1038/sj.embor.7400228

Rueda, D., & Stegmueller, D. (2015). The externalities of inequality: Fear of crime and preferences for redistribution in Western Europe. *American Journal of Political Science*, *60*(2), 472–489. https://doi.org/10.1111/ajps.12212

Ruiter, R. A., Abraham, C., & Kok, G. (2001). Scary warnings and rational precautions: A review of the psychology of fear appeals. *Psychology & Health*, *16*(6), 613–630. https://doi.org/10.1080/08870440108405863

Russ, T. C., Stamatakis, E., Hamer, M., Starr, J. M., Kivimaki, M., & Batty, G. D. (2012). Association between psychological distress and mortality: Individual participant pooled analysis of 10 prospective cohort studies. *BMJ*, *345*, e4933. https://doi.org/10.1136/bmj.e4933

Santaularia, N. J., Larson, R., & Uggen, C. (2021). Criminal punishment and violent injury in Minnesota. *Injury Epidemiology*, *8*(1), 1–10. https://doi.org/10.1186/s40621-021-00303-3

Scarborough, B. K., Like-Haislip, T. Z., Novak, K. J., Lucas, W. L., & Alarid, L. F. (2010). Assessing the relationship between individual characteristics, neighborhood context, and fear of crime. *Journal of Criminal Justice*, *38*(4), 819–826. https://doi.org/10.1016/j.jcrimjus.2010.05.010

Schafer, J. A., Huebner, B. M., & Bynum, T. S. (2006). Fear of crime and criminal victimization: Gender-based contrasts. *Journal of Criminal Justice*, *34*(3), 285–301. https://doi.org/10.1016/j.jcrimjus.2006.03.003

Schildkraut, J., Elsass, H. J., & Stafford, M. C. (2015). Could it happen here? Moral panic, school shootings, and fear of crime among college students. *Crime, Law and Social Change*, *63*(1–2), 91–110. https://doi.org/10.1007/s10611-015-9552-z

Scholz, U., Gutiérrez Doña, B., Sud, S., & Schwarzer, R. (2002). Is general self-efficacy a universal construct? Psychometric findings from 25 countries. *European Journal of Psychological Assessment*, *18*(3), 242–251. https://doi.org/10.1027//1015-5759.18.3.242

Schwarzer, R., Bäßler, J., Kwiatek, P., Schröder, K., & Zhang, J. X. (1997). The assessment of optimistic self-beliefs: Comparison of the German, Spanish, and Chinese versions of the general self-efficacy scale. *Applied Psychology*, *46*(1), 69–88. https://doi.org/10.1111/j.1464-0597.1997.tb01096.x

Schwarzer, R., & Jerusalem, M. (1995). Generalized self-efficacy scale. In *Measures in Health Psychology: A user's portfolio* (1st ed., Vol. 1, pp. 35–37). The NFER-NELSON Publishing Company Limited.

Scott, H. (2003). Stranger danger: Explaining women's fear of crime. *Western Criminology Review*, *4*(3), 203–214. https://www.westerncriminology.org/documents/WCR/v04n3/article_pdfs/scott.pdf

Seo, S., Choi, S., Kim, K., Kim, S. M., & Park, S. M. (2019). Association between urban green space and the risk of cardiovascular disease: A longitudinal study in seven Korean metropolitan areas. *Environment International*, *125*, 51–57. https://doi.org/10.1016/j.envint.2019.01.038

Shapka, J. D., & Khan, S. (2018). Self-Perception. *Encyclopedia of Adolescence*, 3406–3418. https://doi.org/10.1007/978-3-319-33228-4_481

Sharma, C., & Ojha, C. S. P. (2020). Statistical parameters of hydrometeorological variables: Standard deviation, SNR, skewness and kurtosis. In R. AlKhaddar, R. Singh, S. Dutta, & M. Kumari (Eds.), *Advances in Water Resources Engineering and Management. Lecture*

Notes in Civil Engineering (Vol. 39, pp. 59–70). Springer, Singapore. https://doi.org/10.1007/978-981-13-8181-2_5

Shechory-Bitton, M., & Cohen-Louck, K. (2016). Does fear of terrorism differ from fear of crime and sexual assault: A question of geographical location and residential area. *International Journal of Offender Therapy and Comparative Criminology*, *62*(3), 806–826. https://doi.org/10.1177/0306624x16658472

Shippee, N. D. (2012). Victimization, fear of crime, and perceived risk: Testing a vulnerability model of personal control. *Sociological Perspectives*, *55*(1), 117–140. https://doi.org/10.1525/sop.2012.55.1.117

Sidebottom, A., & Tilley, N. (2008). Evolutionary psychology and fear of crime. *Policing*, *2*(2), 167–174. https://doi.org/10.1093/police/pan022

Smith, L. N., & Hill, G. D. (1991a). Perceptions of crime seriousness and fear of crime. *Sociological Focus*, *24*(4), 315–327. https://doi.org/10.1080/00380237.1991.10570598

Smith, L. N., & Hill, G. D. (1991b). Victimization and fear of crime. *Criminal Justice and Behavior*, *18*(2), 217–239. https://www.ojp.gov/ncjrs/virtual-library/abstracts/victimization-and-fear-crime-0

Smith, W. R., Torstensson, M., & Johansson, K. (2001). Perceived risk and fear of crime: Gender differences in contextual sensitivity. *International Review of Victimology*, *8*(2), 159–181. https://doi.org/10.1177/026975800100800204

Solymosi, R., Buil-Gil, D., Vozmediano, L., & Guedes, I. S. (2020). Towards a place-based measure of fear of crime: A systematic review of app-based and crowdsourcing approaches. *Environment and Behavior*, *53*(9), 1013–1044. https://doi.org/10.1177/0013916520947114

Sookram, S., Saridakis, G., & Mohammed, A. M. (2011). Do victims of crime fear crime more? Empirical evidence from the survey of living conditions (2005) of Trinidad and Tobago. *Social and Economic Studies*, *60*(2), 127–144. https://www.jstor.org/stable/41635305

Stafford, M., Chandola, T., & Marmot, M. (2007). Association between fear of crime and mental health and physical functioning. *American Journal of Public Health*, *97*(11), 2076–2081. https://doi.org/10.2105/ajph.2006.097154

Stanko, E. A. (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

Sullivan, G. M., & Artino, A. R. (2013). Analyzing and interpreting data from likert-type scales. *Journal of Graduate Medical Education*, *5*(4), 541–542. https://doi.org/10.4300/jgme-5-4-18

Sutton, R. M., & Farrall, S. D. (2004). Gender, socially desirable responding and the fear of crime: Are women really more anxious about crime? *British Journal of Criminology*, *45*(2), 212–224. https://doi.org/10.1093/bjc/azh084

Tahmassian, K., & Moghadam, N. J. (2011). Relationship between self-efficacy and symptoms of anxiety, depression, worry and social avoidance in a normal sample of students. *Iranian Journal of Psychiatry and Behavioral Sciences*, *5*(2), 91–98. https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3939966/

Taylor, J., Eitle, D., & Russell, D. (2009). Racial/ethnic variation in the relationship between physical limitation and fear of crime: An examination of mediating and moderating factors. *Deviant Behavior*, *30*(2), 144–174. https://doi.org/10.1080/01639620802050213

Taylor, J., & Wilson, J. C. (2019). Using our understanding of time to increase self-efficacy towards goal achievement. *Heliyon*, *5*(8), 1–8. https://doi.org/10.1016/j.heliyon.2019.e02116

Taylor, R. B., & Covington, J. (1993). Community structural change and fear of crime. *Social Problems*, *40*(3), 374–397. https://doi.org/10.2307/3096886

Terry, P. C., Parsons-Smith, R. L., & Terry, V. R. (2020). Mood responses associated with COVID-19 restrictions. *Frontiers in Psychology*, *11*. https://doi.org/10.3389/fpsyg.2020.589598

The Psychological Society of Ireland. (2019, October). *Code of professional ethics*. www.psychologicalsociety.ie. https://www.psychologicalsociety.ie/footer/Code-of-Ethics

Tighe, J., McManus, I., Dewhurst, N. G., Chis, L., & Mucklow, J. (2010). The standard error of measurement is a more appropriate measure of quality for postgraduate medical assessments than is reliability: An analysis of MRCP(UK) examinations. *BMC Medical Education*, *10*(1), 1–9. https://doi.org/10.1186/1472-6920-10-40

Tulloch, M. (2000). The meaning of age differences in the fear of crime: Combining quantitative and qualitative approaches. *British Journal of Criminology*, *40*(3), 451–467. https://doi.org/10.1093/bjc/40.3.451

Vancouver, J. B., Thompson, C. M., Tischner, E. C., & Putka, D. J. (2002). Two studies examining the negative effect of self-efficacy on performance. *Journal of Applied Psychology*, *87*(3), 506–516. https://doi.org/10.1037/0021-9010.87.3.506

Vauclair, C. M., & Bratanova, B. (2016). Income inequality and fear of crime across the European region. *European Journal of Criminology*, *14*(2), 221–241. https://doi.org/10.1177/1477370816648993

Vilalta, C. J. (2011a). Fear of crime in gated communities and apartment buildings: A comparison of housing types and a test of theories. *Journal of Housing and the Built Environment*, *26*(2), 107–121. https://doi.org/10.1007/s10901-011-9211-3

Vilalta, C. J. (2011b). Fear of crime in public transport: Research in Mexico City. *Crime Prevention and Community Safety*, *13*(3), 171–186. https://doi.org/10.1057/cpcs.2011.4

Visser, M., Scholte, M., & Scheepers, P. (2013). Fear of crime and feelings of unsafety in European countries: Macro and micro explanations in cross-national perspective. *The Sociological Quarterly*, *54*(2), 278–301. https://doi.org/10.1111/tsq.12020

Warner, L. M., Schüz, B., Knittle, K., Ziegelmann, J. P., & Wurm, S. (2011). Sources of perceived self-efficacy as predictors of physical activity in older adults. *Applied Psychology: Health and Well-Being*, *3*(2), 172–192. https://doi.org/10.1111/j.1758-0854.2011.01050.x

Warner, T. D., & Thrash, C. R. (2019). A matter of degree? Fear, anxiety, and protective gun ownership in the United States. *Social Science Quarterly*, *101*(1), 285–308. https://doi.org/10.1111/ssqu.12735

Warr, M. (2000). Fear of crime in the United States: Avenues for research and policy. *Criminal Justice*, *4*(4), 451–489. https://www.publicsafety.gc.ca/lbrr/archives/cnmcs-plcng/cn34984-v4-451-489-eng.pdf

Warr, M., & Stafford, M. (1983). Fear of victimization: A look at the proximate causes. *Social Forces*, *61*(4), 1033–1043. https://doi.org/10.2307/2578277

Weitlauf, J. C., Smith, R. E., & Cervone, D. (2000). Generalization effects of coping-skills training: Influence of self-defense training on women's efficacy beliefs, assertiveness,

and aggression. *Journal of Applied Psychology*, *85*(4), 625–633. https://doi.org/10.1037/0021-9010.85.4.625

Winkel, F. W. (1998). Fear of crime and criminal victimization: Testing a theory of psychological incapacitation of the 'stressor' based on downward comparison processes. *British Journal of Criminology*, *38*(3), 473–484. https://doi.org/10.1093/oxfordjournals.bjc.a014258

Wyant, B. R. (2008). Multilevel impacts of perceived incivilities and perceptions of crime risk on fear of crime. *Journal of Research in Crime and Delinquency*, *45*(1), 39–64. https://doi.org/10.1177/0022427807309440

Yammarino, F. J., & Atwater, L. E. (1993). Understanding self-perception accuracy: Implications for human resource management. *Human Resource Management*, *32*(2–3), 231–247. https://doi.org/10.1002/hrm.3930320204

Yuan, Y., Dong, B., & Melde, C. (2016). Neighborhood context, street efficacy, and fear of violent victimization. *Youth Violence and Juvenile Justice*, *15*(2), 119–137. https://doi.org/10.1177/1541204015620283

Zhang, L., Messner, S. F., Liu, J., & Zhuo, Y. A. (2009). Guanxi and fear of crime in contemporary urban China. *British Journal of Criminology*, *49*(4), 472–490. https://doi.org/10.1093/bjc/azp016

Zhao, J. S., Lawton, B., & Longmire, D. (2010). An examination of the micro-level crime–fear of crime link. *Crime & Delinquency*, *61*(1), 19–44. https://doi.org/10.1177/0011128710386203

Ziegler, R., & Mitchell, D. B. (2003). Aging and fear of crime: An experimental approach to an apparent paradox. *Experimental Aging Research*, *29*(2), 173–187. https://doi.org/10.1080/03610730303716

Zulkosky, K. (2009). Self-efficacy: A concept analysis. *Nursing Forum*, *44*(2), 93–102. https://doi.org/10.1111/j.1744-6198.2009.00132.x

Appendices

Appendix I

Study Informed Consent Sheet

Study Title: Investigating the Relationship Between Self-Efficacy and Fear of Crime in an Irish Population

Invitation

You are being invited to participate in a psychology undergraduate thesis study. Before deciding whether to take part, please take the time to read this document, which explains why the research is being done and what it would involve for you. If you have any questions about the information provided, please do not hesitate to contact me using the details at the end of this sheet.

What is the study about?

I am a final year psychology student at the National College of Ireland. I am investigating the relationship between fear of crime and self-efficacy, as well as fear of crime differences based on gender, age and victimization status in an Irish setting. Fear of crime is an uneasy reaction in the presence of a crime-related subject. Self-efficacy is a belief in your ability to produce a desirable response in specific situations. This research is being carried out under the supervision of Dr Conor Nolan. This study has been approved by the National College of Ireland Ethics Committee.

What is involved?

This study involves completing an online questionnaire. To gain access to the online questionnaire, you will have to provide informed consent at the bottom of this page. You will then have access to a demographic questionnaire. This questionnaire records your age, gender and victimization status.

You will then have access to questionnaire assessing self-efficacy. This questionnaire contains ten statements assessing your belief in your ability to produce desirable responses in specific situations. You answer based on how accurately these statements describe you. The possible answers are: 1 = not true at all; 2 = barely true; 3 = moderately true; 4 = exactly true.

You will then be able to access a questionnaire assessing fear of crime. This questionnaire will assess your fear of crime-related stimuli. Five questions will evaluate your fears associated with certain crime-related events on a scale of 1 (not fearful) to 5 (extremely fearful). A debrief sheet will appear following the completion of the questionnaires. It takes less than 10 minutes to complete the study.

Who can take part?

You must be an Irish citizen over the age of 18 and under the age of 85.

Do I have to take part?

Participation in this study is voluntary. No payment is received following participation. During the study, participants can leave without completing the questionnaires, with no penalization. You can withdraw from participation at any time by exiting your web browser or by turning off your device. The questionnaire assessing fear of crime might ask how fearful you are about types of crime. There is a small risk that these questions may cause some individuals

upset or distress. If you feel that these questions may cause you to experience an undue level of distress, you should not take part in the study.

Potential risks of participation

The questionnaire assessing fear of crime might ask how fearful you are about types of crime. There is a small risk that these questions may cause some individuals upset or distress. If you experience this, you are free to discontinue participation and exit the questionnaire. Contact information for relevant support services is also provided at the end of the questionnaire in the debrief. You also have the right to ask questions regarding the study, the researcher can be contacted using the e-mail address below. Questions can also be asked following the completion of the questionnaires.

Potential benefits of participation

There are no direct benefits to you for taking part in this research. However, you will be participating in the first Irish study to examine the relationship between fear of crime and self-efficacy. The data gathered will help us to understand this previously unexplored relationship in Ireland.

Will taking part be confidential and what will happen to my data?

The questionnaire is anonymous, it is not possible to identify a participant based on their responses to the questionnaire. All data collected for the study will be treated in the strictest confidence. The anonymized data will be stored in a password encrypted file, only able to be accessed by the researcher and supervisor. Data is retained for 5 years in accordance with NCI data retention policy.

What will happen with the results of the study?

Results from this study will be analysed and documented in an undergraduate psychology thesis. This thesis will be submitted to the National College of Ireland.

are instantly anonymized, this is not possible.

Contact for further questions

If you have further questions regarding the study, please contact the researcher using the e-mail address x19380783@student.ncirl.ie. If you have any questions regarding your rights as a participant, please contact my supervisor Dr Conor Nolan (conor.nolan@ncirl.ie).

Agreement

I can confirm that I have read all of the information above. I am an Irish citizen over 18 years of age and agree to participate in this study voluntarily.

☐ (Tick box to confirm informed consent)

Appendix II

Demographic Questionnaire

Gender Male (including trans)□ Female (including trans)□ Non-binary □ Other □

Age _____

Are you a victim of crime? Yes □ No □

Appendix III

Generalized Self-Efficacy Scale (Schwarzer and Jerusalem, 1995)

For each item there are four potential responses: 1 = not true at all; 2 = barely true; 3 = moderately true; 4 = exactly true.

I. I can always manage to solve difficult problems if I try hard enough.

II. If someone opposes me, I can find ways and means to get what I want.

III. It is easy for me to stick to my aims and accomplish my goals.

IV. I am confident that I could deal efficiently with unexpected events.

V. Thanks to my resourcefulness, I know how to handle unforeseen situations.

VI. I can solve most problems if I invest the necessary effort.

VII. I can remain calm when facing difficulties because I can rely on my coping abilities.

VIII. When I am confronted with a problem, I can usually find several solutions.

IX. If I am in trouble, I can usually think of something to do.

X. No matter what comes my way, I'm usually able to handle it.

Appendix IV

Fear of Crime Scale (Foster et al., 2014)

In your everyday life, how fearful, or not, are you about the following situations where: 1 = not fearful, 5 = extremely fearful.

1. Having someone break into your house when you're at home.

1 2 3 4 5

|_____|_____|_____|_____|

2. Being attacked by someone with a weapon.

1 2 3 4 5

|_____|_____|_____|_____|

3. Being robbed or mugged on the street.

1 2 3 4 5

|_____|_____|_____|_____|

4. Having your property damaged by vandals.

1 2 3 4 5

|_____|_____|_____|_____|

5. Having someone loiter around your home at night.

1 2 3 4 5

|_____|_____|_____|_____|

Appendix V

Study Debrief Sheet

Study Title: Investigating the Relationship Between Self-Efficacy and Fear of Crime in an Irish Population

You participated in a study examining the relationship between fear of crime and self-efficacy, as well as differences in fear of crime levels between genders, age groups and victims and non-victims of crime. You initially completed a demographic questionnaire. Gender, age and previous victimization were all measured here. These variables are commonly associated with fear of crime, and their inclusion in this study was for comparison with previous study findings. It is hypothesised that differences in fear of crime levels will exist between different genders, age groups and victims and non-victims of crime.

You subsequently completed a generalized self-efficacy questionnaire. This measured the strength of your belief in your abilities to overcome any difficulties you may face. You then completed a fear of crime questionnaire. This scale determines how fearful you are of crime. It is hypothesised that a relationship will exist between self-efficacy and fear of crime

If you are interested in the fear of crime or self-efficacy, read the following:

Lewis, D. A., & Salem, G. W. (2017). *Fear of crime* (1st ed.). Taylor & Francis. https://doi.org/10.4324/9780203792032

Bandura, A. (1997). *Self-Efficacy in changing societies* (Revised ed.). Cambridge University Press.

If you have any further questions, please contact the researcher using the e-mail address x19380783@student.ncirl.ie. If participation in this study has caused you psychological distress, please contact my supervisor Dr Conor Nolan (conor.nolan@ncirl.ie). Additional services are listed below, which can be of help if you feel distressed:

Grow (mental health helpline) (call 1890 474 474)

Aware (depression support helpline) (call 1800 80 4848)

Samaritans (emotional support helpline) (freephone 116 123)

Crime Victims Helpline (freephone 116 006)

Thank you for your time!

Appendix VI

SPSS Output and Data Collection Evidence

FYP SPSS n = 124.sav [DataSet1] - IBM SPSS Statistics Data Editor

File Edit View Data Transform Analyze Graphs Utilities Extensions Window Help

	Name	Type	Width	Decimals	Label	Values	Missing	Columns
1	Gender	Numeric	2	0	Gender	{1, Male}...	None	12
2	Age	Numeric	3	0	Age	None	None	12
3	Victim	Numeric	2	0	Have you been ...	{1, Yes}...	None	12
4	GSES1	Numeric	2	0	I can always m...	{1, Not true ...	None	12
5	GSES2	Numeric	2	0	If someone opp...	{1, Not true ...	None	12
6	GSES3	Numeric	2	0	It is easy for m...	{1, Not true ...	None	12
7	GSES4	Numeric	2	0	I am confident t...	{1, Not true ...	None	12
8	GSES5	Numeric	2	0	Thanks to my r...	{1, Not true ...	None	12
9	GSES6	Numeric	2	0	I can solve mos...	{1, Not true ...	None	12
10	GSES7	Numeric	2	0	I can remain ca...	{1, Not true ...	None	12
11	GSES8	Numeric	2	0	When confronte...	{1, Not true ...	None	12
12	GSES9	Numeric	2	0	If I am in troubl...	{1, Not true ...	None	12
13	GSES10	Numeric	2	0	No matter what...	{1, Not true ...	None	12
14	FOC1	Numeric	2	0	Having someon...	{1, Not fearf...	None	12
15	FOC2	Numeric	2	0	Being attacked ...	{1, Not fearf...	None	12
16	FOC3	Numeric	2	0	Being robbed or...	{1, Not fearf...	None	12
17	FOC4	Numeric	2	0	Having your pro...	{1, Not fearf...	None	12
18	FOC5	Numeric	2	0	Having someon...	{1, Not fearf...	None	12
19	FOC_score	Numeric	8	2	In your everyda...	{1.00, Not fe...	None	11
20	GSES_score	Numeric	8	2	Please respond...	{1.00, Not tr...	None	12
21	ID	Numeric	8	0		None	None	10
22								
23								
24								

Data View | Variable View

Hypothesis Test Summary

	Null Hypothesis	Test	Sig.[a,b]	Decision
1	The distribution of In your everyday life, how fearful, are you about the following situations is the same across categories of Gender.	Independent-Samples Mann-Whitney U Test	.000	Reject the null hypothesis.

a. The significance level is .050.

b. Asymptotic significance is displayed.

Independent-Samples Mann-Whitney U Test

In your everyday life, how fearful, are you about the following situations across Gender

Independent-Samples Mann-Whitney U Test Summary

Total N	124
Mann-Whitney U	2615.000
Wilcoxon W	5390.000
Test Statistic	2615.000
Standard Error	195.991
Standardized Test Statistic	3.903
Asymptotic Sig.(2-sided test)	.000