AN AUGMENTED COUNSELING APPROACH ON FEAR OF CRIME AND SELF-EFFICACY IN OLDER ADULTS

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ABSTRACT

Fear of crime research notes two strong predictors of fear are fear of crime and perceived risk of victimization. Adults 65 years of age and older report a higher fear of crime than younger age groups. The effects of fear of crime on older adults can be long-lasting and have a notable impact on their mental, emotional, and physical wellbeing (National Center for Victims of Crimes, 2012; Tan & Haining, 2016; Rivara et al., 2019; Serfaty et al., 2016; Serfaty et al., 2021; Sheppard et al., 2021; Victims of Crime, 2019). Fear of crime models denotes a reciprocal nature to fear of crime impacting an individual's thoughts, behaviors, and actions (Rader et al., 2007; Rader, 2010; Rader, 2017). Social Cognitive Theory's triadic causation model further declares personal factors influencing an individual's behavior and environment, and vice versa (Bandura, 1989). One of the ways to promote positive behavioral change is by raising a person's perceived self-efficacy (Bandura, 1986; Bandura, 1990; Bandura, 2004). Raising an older adult's self-efficacy beliefs on successfully thwarting or dealing with an unsafe situation can be vital to countering fear of crime. Psychoeducation group counseling and self-defense training are common treatment modalities used to raise a person's self-efficacy in addressing fear of crime (Clark, 1998; Helgeson et al., 2006; Ozer & Bandura, 1990; Sanders & Murray, 2018). Both treatment approaches are often used separately to manage an individual's fear of crime. The

present study compared an augmented group intervention (i.e., psychoeducation group counseling and self-defense training) to a non-augmented (i.e., psychoeducation group-only) group intervention on self-efficacy and fear of crime.

A total of 34 older adults with a mean age of 68.21 years, primarily female, married or widowed, and retired, participated in the study. Participants were randomly assigned to an augmented or non-augmented group and provided the intervention remotely online, once a week for six weeks. Participants were measured on perceived self-efficacy, fear of crime, and perceived risk of crime pre and post the study. Participants in the augmented intervention were also measured on self-defense proficiency (i.e., pre and post-study). Participants were also asked to complete a weekly check-in survey and a satisfaction and technology questionnaire post the study. An RM ANOVA analysis revealed that the augmented and non-augmented groups increased perceived self-efficacy from engaging in the six-week study. An RM ANOVA also showed that the augmented group decreased in total fear of crime, while the non-augmented group increased in fear. A simple linear regression showed that perceived self-efficacy did not predict total fear of crime. However, a regression analysis revealed self-defense self-efficacy was a predictor of total fear of crime for the augmented group. A paired-samples t-test showed the augmented group's self-defense proficiency in skill increased over time from engaging in the six-week study. Participants of both groups reported high to moderately-high satisfaction with the study design, remote online approach, and use of technology. Participants also indicated that participation in the study positively impacted their views of safety and self-defense. Future research would benefit from providing a similar study in person, developing instruments specific to measuring older adults' self-efficacy and fear of crime, and examining messages and message sources on fear of crime.

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Margaret Perry Sanders

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FEAR OF CRIME AND SELF-EFFICACY IN OLDER ADULTS

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DEDICATION

The Vision

The vision for this body of work is dedicated to all the women in my family, especially to my mother, Sherian D. Howard, my aunt, Nadine Perry, my grandmothers, Margaret B. Stark and Jean Perry, and my great-grandmother, Bessie Fannie Mae Gowan Bartlett Davis. These women and many not mentioned provided me the self-belief, support, and strength to finish this journey. School and academia were always challenging for me as a person with a silent disability, dyslexia, and a learning disability. I was not the type of student anyone would have thought would pursue or even successfully complete a doctoral program. In my own opinion, I was the least likely, and yet here I am! These women showed me the value of perseverance and hard work. Each of them encouraged me to go for my dreams, never give up, and believe that I could climb any mountain, even if the face of adversity. My mother, in particular, taught me the value of education, how to finish what I've started, and that if I put my mind to it, I can do anything. My aunt taught me that self-empowerment came from within, and my value was more than the sum of what others thought of me. My grandmothers taught me the value of hard work and the power of unconditional love, while my great-grandmother taught me fun and joy could be found even in hard work. Most of all, each taught me that my limitations (i.e., gender, dyslexia, learning disability) were not a negative but a strength and that even in the face of many challenges, I still could succeed. For their faith in me, each of them will be preserved in my work, and I am forever grateful. May I pass their legacy of self-belief, perseverance, and empowerment to future women and girls.

The Inspiration

The inspiration for this work is dedicated to those who taught me to protect myself and empowered me to believe I could feel safe. First, I dedicate this work to my father, Robert Arlin Perry, whose support and love have always made me feel safe. Second, I dedicate my work to David Joe Sanders (i.e., my Hakka Bak Mei Kung fu instructor), Sr., Dave Thomas Brewer (i.e., my Isshinryu and Kobudo instructor), Michael Anthony Davis (i.e., my Tai Chi Kung fu instructor), and Jerry Dula (i.e., my Shotokan instructor). These martial artists provided the foundation for my training, which made this work possible. Each kindled my desire to empower others to believe they can protect themselves. I would like to emphasize the basis of the self-defense techniques presented in this work was from the training I received under David Joe Sanders Sr. in a family style of kung fu, Hakka Bak Mei Kung fu. I know he would be proud of my accomplishment, and I could not have done this without his inspiration and teachings. His legacy and the inspiration and teachings from Dave Thomas Brewer in Isshyinryu and Okinawan Kobudo (i.e., weapons) will be preserved and continued well beyond this work.

The Purpose

The purpose of this body of work is dedicated to all the older adults, women, and any marginalized group that desires to feel safer in sometimes an unsafe world. Personal safety should be a fundamental human right that everyone should be afforded. Unfortunately, this is not often the case, and finding safety in one's home, community, environment, school, workplace, and even society is sometimes the exception, not the norm. For this reason, I will continue to strive, teach, and advocate for the personal safety and bodily autonomy for all. Everyone deserves to grow up and live in a world where they feel physically, mentally, and emotionally safe, and personal safety is upheld as a standard.

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couldn't do this. I would also like to thank my Aunt Nadine and grandmother, Margaret Stark, for always inquiring about my progress and offering words of hope. I cannot complete this voyage of triumph without thanking Brenda and Joe Sanders Sr. for all their love and encouragement. You both have and always will be family, and you had always believed in me when I didn't always believe in myself. I would like to express my deepest gratitude to my dear friend Danna Swanenberg who has been a sister by another mother and another pillar in my life for over twenty years. Your laughter, the joy of your friendship, thoughts of strength, and words of reassurance have carried me through so many moments.

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CHAPTER I: INTRODUCTION

Introduction

One of the fastest-growing age groups in the United States is individuals 65 years of age and older (Federal Interagency Forum on Aging-Related Statistics, 2016; Statista Research Department, 2021; United States Census Bureau, 2017). In 2019, this age group accounted for 16.5% of the total U.S. population, equating to over 46 million Americans (Federal Interagency Forum on Aging-Related Statistics, 2016; Statista Research Department, 2021; United States Census Bureau, 2017). By 2030, this age group is projected to grow to 74 million people and account for over 21% of the U.S. population (Federal Interagency Forum on Aging-Related Statistics, 2016; United States Census Bureau, 2017). Additionally, in 2030 those identified as part of the Baby Boomer generation will be over 65 years of age and outnumber children 0 to 9 years of age for the first time in U.S. history (United States Census Bureau, 2018).

With the onset of the COVID-19 pandemic in 2020, many older adults found themselves adhering to strict stay-at-home restrictions and social distancing (CDC, 2022; Moreland et al., 2020; Williams II et al., 2021). Recommendations by the CDC regarding these restrictions were necessary to protect the health and wellbeing of the older adult population (CDC, 2022; Moreland et al., 2020; Williams II et al., 2021). Older adults were considered most vulnerable to the deadly effects of the virus (CDC, 2022; Moreland et al., 2020; Williams II et al., 2021). In addition, from healthcare to rehabilitation services, older adult services shifted from being provided in-person to remotely online (Mishna et al., 2020). Crime declined dramatically across the U.S. due to COVID-19 restrictions (Nivette et al., 2021). Fear of crime and perceived vulnerability to crime did not change for this segment of the population (Payne, 2020; Stickle & Fleson, 2020; Williams II et al., 2021). Maintaining personal safety from home invasions, elder

abuse, thefts, and assaults was still of concern for many older adults during the pandemic (Malik et al., 2020; Payne, 2020; Stickle & Fleson, 2020).

The Federal Interagency Forum on Aging-Related Statistics (2016), highlighting forty-one wellbeing indicators for older adults, indicates enhanced personal safety is essential for mental, emotional, and physical health. Personal safety among older adults is often associated with driving safety and the proper use of prescribed medication (Federal Interagency Forum on Aging-Related Statistics, 2016). However, an area of personal safety not commonly discussed is the older adult's perception of physical safety. The 2016 forum by the Federal Interagency Forum on Aging-Related Statistics (Forum) notes a lack of research on personal safety by calling for more data on safety indicators for the well-being of older adults. In particular, this Federal agency called for more research on current safety concerns.

Background of the Problem

Crime and Older Adults

Since 2014, the number of violent crimes (e.g., assault, murder, rape, sexual assault) and non-violent crimes (burglary, property crimes) committed across the United States has declined amongst all age groups (National Crime Victimization Resource Week, 2018; Morgan & Kena, 2018). Compared to all other age groups, crime statistics collected on older adults indicate this age group is the least likely to be the victim of a crime (Morgan & Kena, 2018; National Sheriffs' Association, 2012). However, the decline in crime committed against this age group has been debated. Organizations tracking statics on crime and older adults find that many crimes committed against older adults go unreported (National Crime Victimization Right's Week (NCVRW), 2018; National Council on Aging, 2019). Many crimes go unreported/underreported, making it difficult for professionals to gauge the real impact of crime on this population and how

to effectively provide treatment (National Crime Victimization Right's Week (NCVRW), 2018; National Council on Aging, 2019).

Crime Experienced by Older Adults

The statistics on older adults and violent crimes vary amongst research and national reporting agencies. The rate of violence against this age group ranges from 2.4 per 1,000 adults to 3.6 per 1,000 adults age 65 and older, with some researchers maintaining crime against older adults is on the rise (Morgan & Kena, 2018; National Sheriffs' Association, 2012; U.S. Department of Justice, 2014). A report issued by the Bureau of Justice Statistics in 2017 noted that crimes against this age group increased from 2015 to 2017 by 100,900 for those aged 65 and older (U.S. Department of Justice, 2018). Even though older adults' prevalence of violent crimes is the lowest compared to any other age group, less than half of all violent crimes committed against older adults are reported to the police (NCVRW, 2018; U.S. Department of Justice; 2018).

Non-violent crimes committed against older adults often include robbery (i.e., purse snatching, pickpocketing), property crimes (i.e., general burglary, household burglary, auto thefts), and vandalism; to name a few (National Sheriffs' Association, 2012; Sanders, 2014; Sanders & Murray, 2018). The rise in the rate of non-violent and nonfatal crimes committed against older adults is said to be driven by an increase in simple assault (i.e., failed battery attempt, dangerous acts) and property crimes (Morgan & Kena, 2018; U.S. Department of Justice; 2018; US Legal, 2016). From 2015 to 2016, property crimes increased by almost 8%, with victimizations per 1,000 households (Morgan & Kena, 2018). Over 59% of older adults report being victims of property crimes and robbery, either nearby or in their homes (Morgan &

Kena, 2018; U.S. Department of Justice; 2018). The effects of violent and non-violent crime can have a long-lasting psychological, emotional, and mental impact on older adults.

Older Adults and Heightened Fear of Crime

The literature and research examining fear of crime note that a general fear of events or objects, such as being the victim of a crime, can be a strong predictor of fear and heighten the perceived risk of criminal victimization (Chadee et al., 2016). Fear, in general, can be an intense emotion that impacts a person's emotional, psychological, and physical well-being, especially when there is a perceived threat (Pearson & Breetzke, 2013). Ongoing or chronic fear of crime can increase psychological distress and anxiety (Morrall et al., 2010; Pearson & Breetzke, 2013; Roberts et al., 2012).

Researchers examining fear of crime suggest older adults are more vulnerable to developing a fear of victimization based on current psychological functioning, social support, or lack thereof (Acierno et al., 2010; Collins & Marrone, 2015; Ferraro, 1995; Ferraro & LaGrange, 1992). Additionally, ethnicity, depressive status, and the older adult's physical environment play a role (Acierno et al., 2010; Collins & Marrone, 2015; Ferraro, 1995; Ferraro & LaGrange, 1992). The transfer of emotion regarding fear of crime leads to a heightened sense of fear or anxiety, regardless of experience (Acierno et al., 2010; Chadee et al., 2016). Finding ways to counter the effects of crime or even fear of crime in older adults is key to promoting effective treatment through counselors-in-training.

The Effects of Crime on Older Adults

Research on crime and older adults reports older adults are less likely to experience a physical injury (18%) from a violent crime compared to 12 to 24-year-olds (30%) or 25 to 49-year old (25%) (Morgan & Kena, 2018). Violent crimes committed against older adults are not

always fatal. However, whether violent or not, survivors of a crime experience some form of loss; emotionally, financially, or physically. The impact of experiencing a violent crime can have both an immediate and long-lasting effect; altering the mental, emotional, and physical well-being of the older adult (Acierno et al., 2010; National Center on Elder Abuse, 2019; National Center for Victims of Crimes, 2012; Tan & Haining, 2016).

Physical Impact of Crime

Even though not all crime leads to violent outcomes, minor non-fatal crimes can still have a physical, long-lasting impact on the survivor. The physical effects of crime can be easily detectable. Based on the altercation, the survivor can bear the physical signs of the event (i.e., bruising, scratches, cuts, lacerations, broken bones) **(**National Center for Victims of Crimes, 2012; Shapland & Hall, 2007; Wasserman and Ellis, 2010). Other physical symptoms and signs of a violent or non-violent crime include headaches, hyper-alertness, sleep disturbance, fatigue, and decreased appetite (Centers for Disease Control and Prevention, 2018; National Center for Victims of Crimes, 2012; Tan & Haining, 2016; Victims of Crime, 2019). Additionally, the survivor may experience cognitive issues (difficulty concentrating, difficulty focusing, ruminating thoughts of the event) depending on the trauma (Centers for Disease Control and Prevention, 2018; National Center for Victims of Crimes, 2012; Tan & Haining, 2016; Victims of Crime, 2019).

For older adults, the effects of being the survivor of a non-fatal or violent crime can be even more confounding compared to other age groups. Older adult survivors of a crime are more susceptible to illness (e.g., chronic pain, heart disease) and increased complications of preexisting health conditions (CDC, 2018; National Center on Elder Abuse, 2019; National Center for Victims of Crimes, 2012). A violent crime experience can also increase older adults'

risk of premature death (CDC, 2018; National Center on Elder Abuse, 2019). The World Health Organization (WHO; 2019) warns that non-fatal crimes can cause severe injuries in older adults and permanent damage. Even if the physical injuries are not severe, the WHO cautions older adults can still experience intense psychological and emotional effects.

Psychological and Emotional Impact of Crime

The mental and emotional effects of a violent versus non-violent crime can vary. Depending on the severity of the crime, some survivors may experience intense flashbacks, nightmares, or other post-traumatic stress symptoms (PTSS) or acute stress disorder (National Center for Victims of Crimes, 2012; Victims of Crime, 2019). A crime experience may also result in severe anxiety, loss of confidence, feelings of grief, outbursts of anger or sadness, and long-term memory problems that last for years (National Center for Victims of Crimes, 2012; Victims of Crime, 2019). A crime's sustained psychological and emotional impacts may go undetected for some time and profoundly affect a person's interpersonal relationships and reduced performance at work and school (National Center for Victims of Crimes, 2012; Victims of Crime, 2019).

The psychological and emotional effects of crime on older adults can be even more adverse. Crime can have a devastating impact on older adults. Making this age group more susceptible to long-term mental health issues (e.g., severe symptoms of depression, acute anxiety, suicidal ideation, and posttraumatic stress disorder (PTSD) requiring long-term treatment (Rivara et al., 2019; Serfaty et al., 2016; Serfaty et al., 2021; Sheppard et al., 2021). The complications associated with the effects of crime on older adults may also lead to increased substance use and unhealthy behaviors (i.e., avoiding or withdrawing from others, choosing to stay homebound) (NCVRW, 2017; Serfaty et al., 2016; Serfaty et al., 2021; Sheppard et al.,

2021; Victims of Crime, 2019;). Older adults who've been the survivor of a crime may present with a more heightened sense of fear of re-experiencing a violent or non-violent crime, depending on their experience (NCVRW, 2017; National Center for Victims of Crimes, 2012; Victims of Crime, 2019).

Impact of COVID-19 on Fear and Older Adults

Older adults are considered one of the age groups with a high risk of mortality linked to COVID-19 (Damayanthi et al., 2021). The aging adult population has accounted for 80% of deaths in the United States since the onset of the pandemic (Damayanthi et al., 2021). The impact of COVID-19 on this population segment has made a notable impact (Koma et al., 2020). The loneliness and isolation associated with COVID-19 restriction led to many older adults reporting increased stress, worry, anxiety, and depression (Koma et al., 2020). Additionally, research noted that one in four older adults reported additional depression and anxiety related to COVID-19 (Koma et al., 2020). Fear of the virus combined with racial tension and a rise in hate crimes in the U.S. has only amplified the fear of violence among older adults (Koma et al., 2020; Winship et al., 2022). Concerns regarding personal safety and perceived risk of victimization continue to be the subject of concern for many in the older adult population.

Influence of Implicit Fear

Fear is an emotional state that can often be difficult to express verbally and unconsciously influence people's thoughts and feelings. Research on implicit fear notes that perceived threats and implicit attitudes toward something or someone can be activated unconsciously without a person's awareness (Greenwald et al., 1998; Hopkins et al., 2015). A person does not always need to be explicitly aware of a threat to exhibit a fear response (Greenwald et al., 1998; Hopkins et al., 2015). Therefore, implicit indices of learning can

produce a physiological response, such as fear of crime or perceived risk of victimization, regardless of a threat (Greenwald et al., 1998; Hopkins et al., 2015). Fear of crime experienced implicitly can influence how a person responds to others or interacts with their environment (Greenwald et al., 1998; Hopkins et al., 2015; Rader, 2010). Thus fear can be a critical emotion that can create bias, influence one's behavior, condition one's response, and lead to heightened distress, anxiety, and depression (Greenwald et al., 1998; Hopkins et al., 2015; Rader, 2010; Scarpina et al., 2018).

The perceived risk of victimization and fear of crime expressed by older adults, 65 years of age and older, is often overlooked in research. Younger age groups are more often the focus of studies examining the impact of crime and perceived risk, with older adults merely consigned to specific subjects (i.e., fall prevention, driving safety, medication safety, elder abuse, financial abuse, or cyber safety) (Cummings, 1992; Hollander, 2010; National Institute on Aging (NIH), 2022; Payne, 2020). However, older adults experience the same types of violent crimes as any other population, from physical, sexual, or emotional abuse and neglect to thefts and vandalism (National Center on Elder Abuse (NCEA), 2019; National Council on Aging, 2019). Understanding how to address the effects of violent crime on older adults by counselors-in-training is essential for professionals learning to address the complex needs of this population.

Countering the Effects of Crime on Older Adults

Two Treatment Modalities

Various treatment modalities are used to counter the effects of crime and fear of crime. Two common types of treatment are counseling (e.g., individual, group, psychoeducation) and self-defense (SD) training (e.g., martial arts training, specified SD program) (American

Psychological Association, 2019; Clapp & Beck, 2012; Guay et al., 2018; Jordan & Mossman, 2019; Regehr et al., 2013; Rosenblum & Taska, 2014; Thompson, 2014).

Psychoeducation Group Counseling

The recommendation of treatment approaches can vary amongst professionals, based on the individual's need. One method utilized to address a person's fear, such as fear of crime, within the field of counseling is psychoeducation group counseling. Psychoeducation groups focus on a central theme and can be educational and therapeutic (Clark, 1998; Corey, 2004, p. 9). The purpose of psycho-education groups can vary, from sharing information and knowledge to teaching skill-building and promoting self-awareness (Center for Substance Abuse Treatment, 2012; Clark, 1998; Corey, 2004, p. 9). Information is shared through various methods, from handouts and books to pamphlets, supplemented by verbal discussion and processing of the subject matter (Clark, 1998; Corey, 2004, p. 9). Psychoeducation groups can be structured to assist individuals with learning a skill or understanding a specific subject matter (Center for Substance Abuse Treatment, 2012; Clark, 1998; Corey, 2004, p. 9). In dealing with the effects of nonviolent or violent crime, such groups can provide a safe, supportive environment for survivors and offer them a space for connecting and relating to others (Clark, 1998; Corey, 2004, p. 9).

Effective use of motivational interviewing (MI) techniques (i.e., OARS) when providing psychoeducation group counseling can promote change (Miller & Rollick, 1991; Reisenhofer et al., 2019). The impact of implicit fear of crime can influence how a person interacts with others in their environment (Rader, 2010). Implicit fear may be founded on feelings and perception than explicit knowledge of a crime (Greenwald et al., 1998; Hopkins et al., 2015; Lundberg et al., 2018; Rader, 2010). Thus, providing MI to address implicit fear of crime can help identify

triggers, promote awareness, and recognize ways of managing negative thoughts or feelings (Miller & Rollick, 1991; Reisenhofer et al., 2019).

Psychoeducation groups are used as a preventive measure by helping individuals gain knowledge about an unknown or known theme that may cause them distress, such as fear of crime (Center for Substance Abuse Treatment, 2005; Clark, 1998; Corey, 2004, p. 9). Psychoeducation to raise awareness about personal safety and self-efficacy towards addressing potentially violent or nonviolent crimes can have several benefits. The benefits of individuals engaging in psychoeducation group counseling include the sharing of similar experiences, reduced feelings of isolation, and the imparting of relevant information to increase awareness and promote change (Center for Substance Abuse Treatment, 2005; Center for Substance Abuse Treatment, 2012; Clark, 1998; Helgeson et al., 2006). Researchers have noted that participation in psychoeducation groups can decrease stress, anxiety, conflict, and impairment caused by the issue at hand (Clark, 1998; Helgeson et al., 2006). Another treatment approach used to address a person or group's fear of crime is self-defense training.

Self-defense Training

Using self-defense training to protect and defend one's personal property, self, or others is another standard method to address fear of crime. Self-defense is often understood as the act of a person defending themselves when physically attacked or protecting one's property or close association, as permitted by the law (National Coalition against Sexual Assault, 2013). The aim of self-defense training programs is to empower the participant to promote personal safety and awareness to interrupt any act of violence (Thompson, 2014). The purpose of determining such methods is to help a person resolve various situations involving a verbal or physical attack or crime where one's safety is in question (Brecklin, 2008; Hollander, 2010; Sanders & Murray,

2018; Weitlauf et al., 2000). Self-defense training can provide various physical and non-physical options to address situations where safety is a concern.

Researchers examining why individuals seek out and engage in self-defense training found general fear of experiencing a violent or non-violent crime was a significant motivator (Angleman et al., 2009; Anderson & Whitson, 2005; Hollander, 2010; Ozer & Bandura, 1990; Weitlauf et al., 2000). The benefits of engaging in self-defense training have also been noted by researchers and found to have a mitigating, positive effect; both mentally and emotionally (Angleman et al., 2009; Ball & Martin, 2012; Bodin & Martinsen, 2004; Brecklin, 2008; Hollander, 2010; Weitlauf et al., 2000).

Individuals engaging in self-defense training programs have reported a decrease in anxiety, stress, and even depression, as well as an increase in personal awareness, self-confidence, self-esteem, and improved social engagement (Angleman et al., 2009; Ball & Martin, 2012; Bodin & Martinsen, 2004; Sanders & Murray, 2018; Weitlauf et al., 2000). Another benefit noted by researchers is a reduced fear of crime. Participants engaged in self-defense training report feeling more confident with the following: handling unsafe situations, engaging in verbal self-defense, and using their self-defense training (Brecklin, 2008; Hollander, 2010; Weitlauf et al., 2000).

The benefits of learning self-defense training are healthy verbal and physical assertiveness and acquisition of proper coping mechanisms (e.g., arousal control or energy management, stress management) to manage potential situations or threats to personal safety (Angleman et al., 2009; Ball & Martin, 2012; Bodin & Martinsen, 2004; Sanders & Murray, 2018; Weitlauf et al., 2000). For a person to employee self-defense techniques successfully, they must *believe* (i.e., self-belief) in their ability to perform the SD skill effectively (Angleman et al.,

2009; Bandura, 1990; Bandura, 2004; Ozer & Bandura, 1990; Sanders & Murray, 2018; Weitlauf et al., 2000). Application of theory can assist in promoting the desired change in behavior, whether physically, emotionally, or psychologically.

Remote Online Approach

The impact of COVID-19 on the U.S. populace forced organizations (i.e., healthcare, counseling, exercise and fitness, and education) to shift from providing services in-person to remotely online (Bashir et al., 2021; Bessennyy et al., 2021; Davalos et al., 2021; Mishna et al., 2020). For older adults, shifting services online highlighted technology-related challenges and a lack of access or understanding of the use of technology faced by the aging population (DeAngelis, 2021; Moore & Hancock, 2020). Yet, though there may be challenges to offering an online approach, there are also many benefits. A remote online approach can provide positive social interaction, access to care or services, and supportive skill-building (DeAngelis, 2021; Moore & Hancock, 2020). Even though most research highlights the negative impact of technology on older adults, this population has untapped technology-based strengths. Older adults are shown to possess a greater desire to learn and time availability than younger age groups (Moore & Hancock, 2020). Older adults are also more likely to use technology for fact-checking and seeking resources (Moore & Hancock, 2020).

During the pandemic, technology allowed older adults to stay-at-home and engage in social distancing (Moore & Hancock, 2020). Thus, understanding how to provide effective services and therapeutic interventions remotely online to the aging population can be crucial to expanding access to services for this age group. Due to COVID-19, the present study was provided remotely online to older adults. Details on the design and procedures of the remote online approach have been provided in the methods section (i.e., Chapter 3).

Applying Social Cognitive Theory to the Two Treatment Modalities

A professional counselor or counselor-in-training can help a person address personal disparities (e.g., lack of self-confidence or self-belief) using interventions founded upon the appropriate counseling theory. Social Cognitive Theory (SCT), a theory founded by Albert Bandura, emphasizes that behavior associated with personal achievement is linked to one's perceived self-belief. Based on SCT, Bandura asserts that a person's ability to achieve a specific goal or elicit a desired behavior is linked to their belief to perform the task or behavior successfully (Bandura, 1990; Bandura, 2004). Bandura (1990; 2004) further maintains a person's 'perceived' belief regarding their ability to perform the task or behavior impacts the actualization of the desired behavior. Therefore, if a person believes they can perform a task successfully (e.g., learn a new skill or engage in an activity), then they are more than likely to be successful in doing so (Bandura, 1986; Bandura, 1990; Bandura, 2004; Pajares, 2002). Hence, if a person believes they can achieve the desired goal, task, or behavior, they are more likely to achieve it. For example, if you ask a person if they *believe* they can climb Mount Everest. If they say yes, and decide to climb the summit of this historic mountain. Then they are more likely to be successful based on their high self-belief. Therefore, SCT states the key to promoting change in a person's self-belief, like fear of crime or one's ability to counter crime effectively, is to raise a person's self-efficacy beliefs.

Raising Perceived Self-Efficacy (SE): The Role of SE

Bandura identifies three factors that influence an individual's behavior: personal, environmental, and behavioral factors (Bandura, 1990; Bandura, 2004). Each of these factors has a reciprocal effect on the other and drives human functioning. Per SCT, self-efficacy is the most significant influence on these three factors and individual behavior. Self-efficacy is an

individual's personal beliefs and confidence regarding achieving a goal or outcome and performing a behavior successfully (Bandura, 1986; Bandura, 1990; Bandura, 2004; Williams, 2010). The goal is often task-oriented, with self-efficacy beliefs playing a vital role in a person's self-appraisal of their overall performance (Bandura, 1986; Bandura, 1990; Pajares, 2002). Self-efficacy beliefs are formed based on one's judgment of their ability to perform an action successfully, complete a task, or achieve the desired goal (Helgeson et al., 2006; Pajares, 2002). Self-efficacy beliefs are then (Pajares, 2002). A person with high self-efficacy regarding performing a task or accomplishing a goal is more likely to believe the outcomes will succeed. Therefore, raising perceived self-efficacy beliefs is key to helping an individual achieve a set goal or learn new behavior and perform it successfully.

Raising Self-Efficacy through Mastery Experiences

Both counseling and self-defense training can assist in raising an individual's self-efficacy in managing their fear of crime and addressing a self-defense situation effectively. *How* a person's self-efficacy beliefs are raised is crucial to building those beliefs. There are four ways an individual's perceived self-efficacy can be increased: mastery experiences, vicarious experiences, verbal persuasion, and interpretation of psychological states (Bandura, 1990). Mastery experiences are considered the most effective in raising the perceived self-efficacy of these four methods. Mastery experiences are personal experiences of completing a task, achieving a set goal, or performing the desired behavior (Bandura, 1990; Ozer & Bandura, 1990).

SCT researchers have found that offering mastery experiences that promote an overall sense of success strengthens a person's self-belief. Bolstering an individual's self-efficacy beliefs can lead them to seek out and attain more challenging goals. The higher a person's perceived

self-efficacy is, the more likely they are to seek out situations that provide ongoing mastery experiences (Bandura, 1990). Conversely, the lower a person's perceived self-efficacy, the more likely they are to disengage in a task/behavior and not re-engage until task difficulty has been decreased (Bandura, 1990; Beattie and Davies, 2010).

Using Psychoeducation Group Counseling to Raise SE

Researchers evaluating the benefits of utilizing counseling approaches to raise self-efficacy note psychoeducation and/or group counseling to be effective (Cusack et al., 2018; Faysali et al., 2017; Hubbard et al., 2016; Pelleginelli et al., 2012; Shorey et al., 2015; Solomon et al., 1996). Using psychoeducation group counseling to raise self-efficacy increases self-awareness and understanding of the presenting issue and increases confidence to address the problem effectively (Hubbard et al., 2016; Solomon et al., 1996). Psychoeducation group counseling further supports ongoing improvement over time when utilized to raise self-efficacy. Increasing a person's self-awareness and understanding using this counseling method is the link to raising their perceived self-efficacy. The more confident the individual becomes in understanding an issue addressed in counseling, due to a sense of mastery, can help them manage behaviors/symptoms or handle various life stressors (Cusack et al., 2018; Hubbard et al., 2016; Pelleginelli et al., 2012; Shorey et al., 2015). Self-defense training, like psychoeducation group counseling, has also been noted to be an effective method of raising self-efficacy.

Using Self-Defense Training to Raise SE

At length, the use of self-defense training to raise a person's perceived self-efficacy has been researched. The findings of these studies have noted a marked increase in SE through mastery experiences. During self-defense training, participants offered mastery experiences reported more exceptional interpersonal, activity, and self-defense self-efficacy (Cox, 1999; Ozer

& Bandura, 1990; Sanders & Murray, 2018). Meaning increased self-efficacy through self-defense training led to a greater sense of personal safety at home and within the community. The role of utilizing self-defense training to raise self-efficacy beliefs is one of empowerment. For individuals with a heightened fear of crime, self-defense training empowers them to successfully deal with a potentially violent or non-violent situation/crime. A practical method for providing mastery experiences within self-defense training is promoting implicit learning.

Applying Implicit Learning to Promote Mastery Experiences

Implicit learning is understood as learning with little to no conscious awareness and, in a way, absent explicit rules or explanation (Reber, 1992; Sanders & Murray, 2018; Seger, 1994; Stadler, 1997). While learning implicitly, the person may demonstrate the skill/behavior being learned but have difficulty verbalizing the steps required to perform the same skill/behavior (Dienes & Berry, 1997; Seger, 1994; Stadler, 1997). An example of learning implicitly is learning or teaching someone to ride a bike. A person may be shown the mechanics of riding a bike and given simple instructions on how to initiate the act of bike riding (i.e., pedal with both feet, try to maintain balance while pedaling, and keep the handlebars straight). Yet, no one can explicitly tell the person how to ride the bike. Instead, the person must *feel* how to balance and ride the bike. The aspect of learning by feeling how to ride the bike is implicit learning.

Researchers agree there are many implicit benefits to learning, whether to promote mastery experiences in a counseling or self-defense training environment. Studies conducted on the benefits of implicit learning indicate this type of learning leads to more effective, long-term emotion management (e.g., management of fatigue and psychological distress), skill retention, and overall performance of the skill/behavior (Gabbett & Masters, 2011; Sanders & Murray, 2018). Learning implicitly allows an individual to improve error detection and correction when

performing the skill or practicing the desired behavior (Gabbett & Masters, 2011; Sanders & Murray, 2018). Implicit learning promotes mastery experiences and builds competency founded on the participant's perspective (Gabbett & Masters, 2011; Sanders & Murray, 2018). Applying implicit learning to the study will enhance the participant's ability to attain the skills to counter fear of crime.

Raising SE Using A Remote Online Approach

Remote online delivery of services (i.e., healthcare, counseling, or education) was not new before the COVID-19 pandemic (Peechapol et al., 2018; Rodriguez & Armellini, 2017).). However, telehealth-based and online services increased thirty-eight times greater during the pandemic than pre-COVID use (Bestsennyy et al., 2021). Services essential to the health and well-being of older adults and younger counterparts were necessary to maintain, despite stay-at-home and social distancing restrictions (Bestsennyy et al., 2021; Moreland et al., 2020; Williams II et al., 2020). Research examining an online learning approach to raising perceived self-efficacy notes that SE is a strong predictor of performance (Peechapol et al., 2018; Rodriguez & Armellini, 2017). Using a remote online approach to raise SE was found to influence positively: the learning experience, knowledge acceptance, knowledge sharing, online interaction and communication, and the learner’s motivation and attitude (Peechapol et al., 2018).

Research has found that a remote online approach to SE can help participants shift from focusing on challenges or barriers to acquiring skills and building awareness (Rodriguez & Armellini, 2017). These are necessary in counseling to promote change and self-defense training to encourage skill-building. Because of COVID-19, the present study adopted a remote online delivery of their study design and procedures. The details of the remote online design and procedures have been provided in the methods section (i.e., Chapter 3).

Statement of the Problem

The first problem noted is the singular approach used to address the effects of fear of crime and the individual approach to prescribing just counseling or self-defense training to counter the effects of crime in older adults. Two treatment approaches often used to counter the physical, psychological, and emotional effects of crime or fear of crime are psychoeducation group counseling and self-defense training (Ghafoori et al., 2019; Hollander, 2010; James, 2013; Ozer & Bandura, 1990; Roy-Byrne et al., 2003; Sanders & Murray, 2018; Thompson, 2014). Both approaches work to counter the effects of crime in different ways. Whether individual or group, counseling focuses primarily on the individual's mental and emotional wellbeing (Clark, 1998; Corey, 2004; Hackney & Cormier, 2009). Self-defense training focuses mainly on an individual's physical well-being (Hollander, 2010; Thompson, 2014; Sanders & Murray, 2018). Using an augmented approach can potentially meet both means by lessening a person's fear of crime and addressing the person's emotional/psychological and physical needs.

The second problem addressed is the lack of research involving an augmented approach to counter fear of crime in older adults. Researchers evaluating fear of crime in older adults note that this population reports a heightened fear of crime than any other age group (Rader, 2017). Researchers evaluating how to counter fear of crime in older adults often study the effects of counseling or physical self-defense training as separate variables. Again, by considering only one approach versus another, a researcher is studying or highlighting only one aspect of the older adult. Researchers also studying the benefits of counseling alone to address the psychological and emotional needs of an older adult's fear of crime inadvertently overlook their physical needs. Whereas research focused only on the effects of self-defense training to counter the older adult's fear of crime fails to adequately address the older adult's internal mental and emotional feelings.

Thus, by prescribing a singular approach (i.e., counseling versus self-defense training), the professional unknowingly negates addressing other personal factors (e.g., mental or emotional factors versus physical factors).

The final problem to be addressed is that little to no research involves an augmented counseling approach in raising a person's perceived self-efficacy. Several studies examine various counseling approaches to increase the perceived self-efficacy among counselors-in-training or those receiving counseling services. The same is noted for the effects of self-defense training on raising a person's perceived self-efficacy. There is little to no research examining the results of an augmented counseling and self-defense training approach to increasing a person's perceived self-efficacy to counter fear of crime. The following study seeks to address all three problems by using an integrative approach that considers the emotional, mental, and physical to counter the effects of crime among older adults.

Statement of the Purpose

The purpose of the current study is four-fold to expand the theoretical and empirical knowledge base within the counseling field and other areas of study. First, the study will collect data through quantitative research to examine if an augmented counseling approach (e.g., psychoeducation group counseling augmented with self-defense training) is an effective means to counter fear of crime. Second, this will be done by evaluating the results of an augmented counseling approach to determine if there is a statistically significant effect on an older adult's self-efficacy. Next, the study results will evaluate if an augmented approach effectively raises an individual's perceived self-efficacy. Last, the study aims to assess the benefit of an augmented treatment approach for older adults and effectively ameliorate the fear of crime in this age group. Overall, the current study aims to advance research and provide insight into an augmented

counseling approach to counter the fear of crime in older adults. The present study also incorporates multiple areas of study, from the field of counseling and kinesiology to areas of research focused on self-defense training, self-efficacy, and the older adult population.

Very few studies have evaluated the relationship between an augmented approach and an older adult's perceived self-efficacy to learn a skill or perform a behavior effectively. The current study is one of the few studies to evaluate the effects of augmenting psychoeducation group counseling with self-defense training on self-efficacy and fear of crime. The study is also one of the few studies to use an augmented approach to study the older adult population. By examining the effects of an augmented approach on an older adult's self-efficacy and fear of crime, the study aims to evaluate if professionals could utilize such an approach as a practical treatment approach. The current study aims to determine if augmenting counseling with an alternative method can assist older adults as an effective treatment and raise perceived self-efficacy. The study contributes to the knowledge base and provides new insight for professionals and counselors-in-training seeking evidence-based approaches for older adults and addressing fear of crime. The following is an overview of the study's research questions.

Research Questions

The present study will work to answer the following four specific research questions. The research questions will be used to evaluate an augmented treatment intervention: a psychoeducation group counseling program with basic self-defense training. The aim is to assess if the intervention has a statistically significant effect on a person's self-efficacy and fear of crime compared to a comparison group receiving only psychoeducation group counseling alone.

The purpose is to provide the fundamental basis of the study and the objectives to be analyzed. Those research questions are as follows.

***Research question 1*:** Does participation in an augmented psychoeducation group counseling and self-defense training program differ from an only psychoeducation group counseling on a person's perceived self-efficacy?

***Research question 2*:** Does participation in an augmented psychoeducation group counseling and self-defense training program differ from an only psychoeducation group counseling on a person's fear of crime?

***Research question 3*:** For an augmented psychoeducation group counseling and self-defense training approach, what is the relationship between self-efficacy and a person's fear of crime?

***Research question 4*:** For a psychoeducation group counseling only approach, what is the relationship between self-efficacy and a person's fear of crime?

Hypotheses

The present study seeks to determine if an augmented approach to group counseling has an effect on perceived self-efficacy and fear of crime. The following hypotheses are proposed based on this aim and the study's research questions.

1) Participants in the augmented (i.e., psychoeducation group counseling and self-defense) group will report a higher perceived self-efficacy than those engaging in the non-augmented (i.e., psychoeducation group counseling only) group.
2) Participants in the augmented (i.e., psychoeducation group counseling and self-defense) group will report a lower level of fear of crime and perceived risk than those in the non-augmented (i.e., psychoeducation group counseling only) group.

3) A relationship between perceived self-efficacy and a participant's fear of crime will be exhibited for those in the augmented (i.e., psychoeducation group counseling and self-defense) group.
4) A relationship between perceived self-efficacy and a participant's fear of crime will be exhibited for those in the non-augmented (i.e., psychoeducation group counseling only) group.

Significance of the Study

Presently, a deficiency exists in the theoretical and empirical knowledge base examining the benefits of augmenting counseling with other treatment approaches to meet individuals' physical, mental, and emotional needs. The focus of the present study was three-fold. First, the study addresses the literature's deficiency by contributing to the knowledge base and understanding of how augmenting a counseling approach can be beneficial. Second, the study aims to enhance the knowledge base for professionals from multiple fields of study (e.g., counseling, rehabilitation counseling, kinesiology, motor learning, and criminology). Third, the study aims to provide a framework for professionals to identify and develop methods to reduce fear of crime, especially for older adults. The literature supports the development of such methods since fear can be addressed independently from crime. Lastly, the present research seeks to contribute to the knowledge base and literature on addressing fear of crime in older adults through a social cognitive perspective.

Based on the study's focus, the significance of the study is four-fold. First, the study will benefit the field of counseling and other research areas by providing a broader understanding and new insight into fear of crime in older adults and the benefits of an augmented treatment approach (e.g., psychoeducation group counseling with self-defense training). Secondly, the

study will contribute to the knowledge base by gaining pertinent information. The information to be obtained is the benefits of augmenting counseling with alternative treatment approaches (e.g., self-defense training). The aim is to determine if an augmented approach can meet the biopsychosocial needs of dealing with fear of crime. Gaining such information will be helpful for future research. The study will benefit counseling and research by contributing to the literature on self-efficacy and how raising perceived self-efficacy might be beneficial in addressing fear of crime. Lastly, the study will provide insight into providing therapeutic interventions remotely online to older adults. Due to COVID-19, the present research shifted from an in-person design to offering online interventions to older participants. Understanding if providing therapeutic interventions online are beneficial to older adults can inform the counseling field seeking to use a similar approach.

Presently, there is little research that evaluates the effects of an augmented counseling approach on a person's fear of crime, particularly in older adults. There is also little to no research in counseling that examines the effects of an augmented counseling approach on raising perceived self-efficacy. A lack of research also exists regarding the effects of using a counseling approach to increase perceived self-efficacy in older adults. Ultimately, the study aims to inspire future researchers in counseling and other fields (e.g., kinesiology, criminology) to evaluate integrative counseling approaches, the benefits of enhancing self-efficacy, and the impact on older adults.

Limitations, Delimitations, & Ethical Considerations

Several limitations and delimitations must be considered for the following study. Additionally, ethical considerations for conducting such a study must be discussed. The following are specific limitations and delimitations to be addressed by the researcher.

Limitations

The limitations of the study could potentially be four-fold. The following is an overview of those limitations that could influence the results of the study.

The Remote Delivery of the Study

In 2020 the United States dealt with an unprecedented pandemic, COVID-19. Due to the nature of the virus and how quickly it spread, face-to-face interaction was discouraged with such places as gyms, restaurants, public facilities, and schools shut down. One of the age groups with the greatest vulnerability to the virus was older adults, 65-years of age and older. So, offering the interventions of the study face-to-face as initially planned at the local Pitt County Senior Center was no longer an option. Therefore, the researcher moved the study to an online platform by offering remote psychoeducation and self-defense training. Even though moving the study online was the only choice, doing so may be a limitation.

Typically, psychoeducation group counseling and self-defense training are offered face-to-face to allow more group interaction and diversity. Due to the study being provided remotely, participants will not receive the same exchange and engagement as face-to-face groups offer (Bergstrom et al., 2010; Mishna et al., 2020). Additionally, the treatment group receiving self-defense training will not receive the same level of self-defense training face-to-face groups can offer (Gentile et al., 2021; Koerner & Staller, 2022). Specifically, self-defense training offers partner work where participants are paired up and work on self-defense techniques. By working together, participants can feel what it's like to do the technique, gauge accuracy, and correct any errors. In the remote learning sessions, participants will not be able to work with a partner, limiting the effectiveness of learning the techniques. Learning self-defense remotely may not have the same impact on the participant's acquisition of the self-defense skills as in-person, face-

to-face training. The instructor will control for this by using implicit learning strategies and encouraging errorless learning on the participant's part. The details on using implicit instruction and errorless learning are discussed in Chapter 2: Literature Review and Chapter 3: Methods.

Perception of Proposed Treatment Modalities

The participant's viewpoint and previous experience with psychoeducation-based group counseling and self-defense training can be a limitation. For instance, if the participant has previously engaged in group counseling and thus positively views group counseling outcomes. The participant's perceived self-efficacy with engaging in counseling may be higher than someone who has never been involved in group counseling. The same could be noted for a participant engaged in some form of self-defense training. Whether the previous experience was positive or negative, the participant's prior knowledge could lead to biased responses when assessed.

In addition to the above limitations, the participant's level of self-defense training should be considered another potential limitation. Suppose the participant is a black belt in a martial arts style or has completed training in multiple self-defense courses. In that case, their training could influence their response to the study's measures (i.e., fear of crime, perceived risk, and perceived self-efficacy). The individual's previous self-defense training could also affect their willingness to acquire new skills and benefit from the interventions. A person's perception and preconceived notions of either intervention could hinder or assist in their ability to learn the self-defense material.

The researcher will use the demographic questionnaire to screen potential participants to control this limitation. The demographic questionnaire could provide questions assessing participants' past experience with psychoeducation group counseling and self-defense training.

Any participant who reported significant experience in group counseling /psychoeducation-based group counseling or self-defense training (e.g., five or more years of experience) will be excluded from the study. Any participant who reported having a black belt or higher degree in martial arts or a certified self-defense instructor would also be excluded from the study to control for this limitation.

Researcher's Potential Bias of the Treatment Modalities

The primary investigator of the present study is a counselor-in-training who holds a master's in Clinical Counseling and Addictions as well as in Sport Psychology and Motor Learning. The primary investigator also has extensive knowledge of self-defense training and martial arts. Based on the researcher's academic background and self-defense training, they may have a preconceived preference regarding the treatment interventions (e.g., psychoeducation group counseling and self-defense training). As a sixth-degree black sash in Hakka Bak Mei Kung fu and a fourth-degree black belt in Isshinryu, the researcher has over twenty-two years of self-defense training. The researcher also has years of experience teaching adolescents and adults, both male and female, self-defense techniques, martial arts, and even weapon defense. The researcher's knowledge and understanding of self-defense training and its benefits can be a source of potential bias. The researcher could hold a biased view on the positive outcomes of group counseling or engaging in self-defense training and those receiving the augmented intervention (i.e., treatment group) due to the researcher's past training, education, and experience. The researcher will employ a manipulation check to ensure the study's integrity to control this limitation. A manipulation check will be conducted on the psychoeducation group counseling and self-defense training provided by a third party or committee member. The committee member will use the manipulation check to assess if the researcher provides the

interventions without bias. The manipulation check details have been provided in the procedure section of Chapter 3 (i.e., Methods section).

Research Design and Methods

Despite the remote delivery of the study's interventions, the overall design and procedures of the study may also be a limitation. The study design and procedures include only a treatment group and a comparison group. The treatment group will receive psychoeducation group counseling and self-defense training. In contrast, the comparison group will only receive psychoeducation group counseling. The limitation in the design of the study is the lack of a third group or control group receiving no treatment. A control group could be beneficial in determining which group benefited most from the different treatment approaches. Due to the study's counseling-based focus and time constraint of completing the comprehensive research, a third group (i.e., control group) was deemed burdensome and excluded from the study's research methods.

Another limitation to the study's design and procedures is that only the treatment group's self-defense skill level will be assessed before (pre) and after (post) the six-week program. The researcher will not evaluate the comparison group's self-defense skills but will only report any notable outcomes for the treatment group. The researcher will include questions in the demographic questionnaire that will be used to assess the comparison group's experience with self-defense training (e.g., kung fu training, basic self-defense training, and military hand-to-hand combat). Ultimately, the decision not to measure the comparison group's self-defense skill level could be a limitation. Participants in the comparison group with previous self-defense experience or training may possess a higher perceived ability to defend themselves and, therefore, rate themselves higher on the self-defense self-efficacy portion of the perceived self-

efficacy scale. Excluding individuals reporting a certain level of self-defense skill (i.e., someone above a novice training level or someone with three or more years of training, a certified self-defense instructor, or a martial arts instructor) may be a way of controlling for this particular limitation.

Delimitations

There are several delimitations to be noted for the present study. First, the research will primarily focus on older adults and how the two interventions impact this age group. Inclusion criteria and age requirements for participants seeking to engage in the study will be 55-years of age and older. By doing so, the researcher aims to increase the knowledge base for this age group (i.e., 55 years and older) on the subject matter. Therefore, younger age groups were excluded to maintain that focus.

The study will also require participants to pass a physical activity readiness questionnaire to participate in the study. If they could not pass the readiness questionnaire, the participant had to gain a letter from their physician before being allowed to participate. Those who did not pass the physical activity readiness questionnaire and failed to gain medical approval were excluded from the study. All participants must sign East Carolina University's Institutional Review Board (IRB) waiver before starting or engaging in the study. Lastly, the study required participants to complete all the testing measures assessing the participant's pre- and post-fear of crime, perceived risk, and perceived self-efficacy. Failure to do so will cause the participant's data to be excluded from the analysis. Along with the limitations and delimitations, the researcher recognizes that some ethical considerations must be noted.

Ethical Considerations.

Some of the ethical considerations noted by the researcher regarding the study are the following:

Safety of Participants

The participants' physical safety and well-being can be risky when engaging in a physical activity like self-defense training. Self-defense training often involves close combat situations (e.g., deflecting a punch, throwing a punch, striking a training opponent). If proper safety measures are not maintained, participants could sustain an injury while participating in the study. Due to the training demands, the self-defense instructor will need to be proactive and vigilant in maintaining the physical safety and well-being of the participants at all times to reduce the likelihood of injury. The researcher/self-defense instructor will monitor the participant's form and placement of body, hands, and feet. The researcher/self-defense instructor will also monitor the participant's body language and affect for any increased stress, distress, or outward appearance concern resulting in an injury. Next, the self-defense instructor will monitor any unsafe or hazardous situations while training. If a participant's training space contains furniture or items they could trip over, the instructor will encourage them to clear the area out of safety concerns. The same will be done during the training sessions if the instructor is concerned for the participant's safety. Before providing self-defense training, the safety expectations and rules will be addressed and reiterated at each group session. The researcher will also monitor each participant for safety throughout the virtual session. These are a few measures the researcher/self-defense instructor can take to ensure the participant's overall physical safety and wellbeing.

Psychological or Emotional Effects

The psychoeducation group counseling sessions could also emotionally impact the participants. Talking about and sharing with others about their crime experiences or fear of crime could cause the participant(s) to experience a heightened sense of fear. Suppose the participant has experienced trauma due to a crime-related situation. In that case, the intervention could cause them to re-experience some form of trauma or event. The impact of triggering an emotional response could harm the participant's mental and emotional well-being and their ability to engage fully in the study. The researcher will also act as the psychoeducation group counselor to ensure the participants' mental and emotional wellbeing.

The researcher (i.e., psychoeducation group counselor and self-defense instructor) will need to proactively and diligently monitor how information is presented and create any concerns for the participants. The researcher will also monitor each participant's emotional wellbeing and provide additional support if they become triggered by the training. If triggered, the researcher will need to engage participants only when they feel comfortable or with performing the task. To maintain the participant's well-being, it will be important to ensure they’re not being pushed beyond their comfort level.

Definition of Terms

The following terms have been defined to understand further key concepts mentioned in the study.

Implicit fear. An emotional state involves implicit attitudes or feelings that are automatically activated (Greenwald et al., 1998). A person is often unaware of the emotional response and doesn't need explicit knowledge of the activating event (i.e., a threatening situation; Greenwald et al., 1998; Hopkins et al., 2015). Additionally, emotions experienced implicitly can

manifest within a person's environment as actions or judgments (Greenwald et al., 1998). Thus, influencing how a person perceives others or interacts within their environment (Greenwald et al., 1998). A person then may experience a heightened fear of crime or hold a greater perception of crime risk based on unconscious fear or attitudes towards crime (Greenwald et al., 1998).

Implicit motor learning. Is learning with little to no conscious awareness (Gabbett & Masters, 2011; Sanders & Murray, 2018). It's the act of acquiring knowledge unconsciously, absent of explicit rules, is not easily verbalized, and places little to no demands on attentional processes (Gabbett & Masters, 2011; Sanders & Murray, 2018). For example, a person learning to ride a bike or swim for the first time engages in implicit motor learning. Although some initial instruction may be given, the learner must participate in the activity.

Group counseling. A counseling method is used to support and guide individuals in a group environment with similar problems or issues (Clark, 1998; Corey, 2004). More specifically, this form of counseling "refers to the provision of psychotherapy in a format of more than three people with similar concerns (Berg et al., 2013; Tepper, 2019, p. 11). Some examples of group counseling are support groups providing counseling in a group setting to individuals who recently lost a spouse or partner or were recently divorced or separated.

Fear of crime. The perceived fear of being a victim of crime, whether violent or non-violent, is low, with little to no evidence to support this fear and the probability of becoming a victim (Douglas, 2019; Lorenc et al., 2012). Another way to define fear of crime is "an emotional reaction characterized by a sense of danger and anxiety (Garofalo, 1981)" that encompasses "the perception of the likelihood of victimization (Lorenc et al., 2012)." Fear of crime is also defined as "the negative emotional reactions generated by crime or symbols associated with crime (Ferraro, p. 73, 1987; Rountree & Land, 1996; Rountree, 1998)." Fear of

crime is linked to environmental cues that can affect an individual's perception of physical harm and alter behavior towards others and one's environment (Douglas, 2019; Garofalo, 1981; Lane & Kuhn, 2013). Such fear often negatively impacts both psychologically and emotionally and can differ based on age, gender, socioeconomic status, and other social determinants (Douglas, 2019).

Mastery experiences. Often defined as "learning from successful experiences" and the personal experience(s) of performing a behavior, task, or attaining a goal successfully (Bandura, 1993; Holleb, 2016). Mastery experiences can also be a successful experience of achieving a previously unattainable goal (Bandura, 1986; Bandura, 1990; Bandura, 2004). Engaging in mastery experiences can motivate a person to seek out more complex learning experiences of the behavior, task, or goal initially achieved, leading to behavior/goal acquisition (Bandura, 1986; Bandura, 1990; Bandura, 2004).

Older adult. Americans 65 years of age and older are categorized as older adults and account for 73 million of the US population (HealthyPeople.gov, 2015; Irving, 2014, p. xxviii-xxix; NCBI, 1990). Other standard terms for this age group are *late adulthood* and the *elderly*. Elderly is defined as an adult 65 years of age or older who is 'old' and past middle age (Administration on Aging [AOA], 2016). In contrast, late adulthood refers to individuals in this age group who are active with independent lifestyles (Irving, 2014, p. 67). For this study and related dissertation, the researcher has chosen to use the term' older adult' primarily over elderly and late adulthood due to both terms' potential vagueness. Furthermore, for the present study, the population was lowered to 55 years of age, aligning with entry into older adulthood (Seniorliving.org, 2020).

Perceived risk. A common cause associated with a person's fear of being a victim of a crime is a person's perception of perceived risk (Ferraro, 1987; Rountree & Land, 1996). However, unlike fear of crime, and emotionally-based feeling, perceived risk is a cognitive measure of judging one's risk of being a crime victim (Ferraro, 1987; Rountree & Land, 1996). Perceived risk is, therefore, a type of "risk perception" or "cognitive fear" (Ferraro, 1987; Rountree & Land, 1996)." It is a type of perception of fear or reaction to fear connected to one's cognitive "judgments of risk" that has been thoroughly studied, since the late-80's (Ferraro, 1987; Rountree & Land, 1996).

Personal safety. There are several ways of describing 'personal safety' since very few theoretical research studies clearly define the concept. A recent study by Waters (2006, p. 64) defines personal safety as an "individual's ability to go about their everyday life free from the threat or fear of psychological, emotional, or physical harm from others." Personal safety can also be understood as freedom from hostility, aggression, harassment, physical harm, or crime-related event (e.g., robbery, assault, sexual assault) (Thompson Rivers University, 2019). Additionally, personal safety can be understood as being free from danger or risk and the condition of being safe (Nilsen et al., 2004; Waters, 2006). The concept of personal safety includes both physical safety (i.e., actual events of violence, physical harm) and psychological safety (i.e., from worry, anxiety, fear of victimization, fear of crime) and recognizing safety needs (Allen, 1990; Thompson Rivers University, 2019; Waters, 2006). The concept of personal safety is supported by the Human Rights Act of 1998 (1998), Chapter 37, Article 5, which states clearly, "everyone has the right to liberty and security of person."

Psychoeducation group counseling. Identified as a "group therapy approach that serves to educate group members on a specific topic relating to significant life events (Brown, 2011;

Tepper, 2019, p. 10). Significant life events may include, but is not limited to: death, divorce, childhood trauma, and other various traumatic events (e.g., natural disasters, crime-related event, sexual assault, rape) (Brown, 2011**).** Those engaged in the group often share a similar concern or presenting problem (e.g., survivors of a crime, fear of crime, divorcees) (Brown, 2011; Tepper, 2019, p. 10).

Remote online learning. Remote online learning is when a student and an instructor interact for the purpose of learning but are separated by time and distance (Trainingindustry.com, 2021). The learner and instructor/teacher are not physically present in a traditional classroom setting (Trainingindustry.com, 2021; Tophat.com, 2021). Instead, the classroom environment and any information provided are relayed through various technology, such as video conferencing, email, audio bridge, online questionnaires, or discussion boards (Trainingindustry.com, 2021; Tophat.com, 2021). Remote learning synchronously (i.e., occurring in real-time or at a scheduled time) or asynchronously (i.e., unscheduled and occurring on one's own time) occurs online and can be referred to as distance education, virtual instruction, or remote training (Trainingindustry.com, 2021; Tophat.com, 2021).

Self-defense. Presently, there are several ways to define self-defense. The legal definition is using reasonable force to protect one's person, family, or personal property against injury from another or a threatened attack (Cornell Law School, 2019). Self-defense aims to prevent an attack by an aggressor that may result in bodily harm if the defender has reason to think or believe they are in danger (Sanders, 2014; Sanders & Murray, 2018). The force used in the act of self-defense must be deemed reasonable, which is defined as a force sufficient to protect from harm or halt potential danger from an attack (Sanders & Murray, 2018). Reasonable force is the opposite of excessive force, which goes beyond the legal scope of self-defense.

Self-defense training. Self-defense training is the act of gaining verbal, physical, assertiveness, and awareness skills to protect one's safety (National Coalition against Sexual Assault, 2013; Sanders & Murray, 2018). The training often includes safety and physical techniques to ward off an attacker. This form of training is viewed as "preparation to minimize the possibility of becoming a victim of crime by acquiring a small number of simple, yet effective, survival skills (Cummings, 1992; Liebling, 2006). The training aims to help a person successfully resist, prevent, survive, or escape a threatening situation or an attack by another (Sanders, 2014; Sanders & Murray, 2018).

Self-efficacy. A person's perceived confidence to successfully perform a behavior, task, or action to achieve a specific outcome or goal (Bandura, 1986; Bandura, 1990; Bandura, 2004). Self-efficacy is also understood as the "beliefs people hold about their future capabilities to successfully handle a challenge (Bandura, 1993; Holleb, 2016). Thus, high self-efficacy can mitigate one's ability to seek out and achieve similar, more complex outcomes or goals (Bandura, 1986; Bandura, 1990; Bandura, 2004). While low self-efficacy can have the opposite effect, leading to discontinuation of behavior or goal acquisition (Bandura, 1986; Bandura, 1990; Bandura, 2004).

Social cognitive theory (SCT). SCT is a behavior theory developed by a Canadian-American psychologist named Albert Bandura. SCT was formally introduced in 1986 and is derived from his early theoretical work in Social Learning Theory. Through SCT, Bandua combines behavior, cognitive, and learning theories (Bandura, 1986; Bandura, 1990; Bandura, 2004). SCT explains the cognitive factors and mechanisms, such as perceived self-efficacy, outcome expectations, and social and perceived facilitators that influence a person's behavior (Bandura, 1986; Bandura, 1990; Bandura, 1993). The theory further provides a link between

mechanisms and influences on individual behavior and the individual's actions or decision to engage in an activity, learn a new skill, or attain a new goal (Bandura, 1986; Bandura, 1990; Bandura, 2004). The theory conjectures that knowledge is based on a person's observation, social interactions, personal experiences, and outside influences and is often applied to goal setting and exercise behavior (Bandura, 1986; Bandura, 1990; Bandura, 2004).

Chapter Summary

The perception of crime among older adults has been shown in research to result in an intense fear of crime. The effects of an intense fear of crime can lead to increased negative psychological, emotional, and behavioral concerns for this age group. Applying the critical elements of Social Cognitive Theory to a clinical treatment approach is one way of countering fear of crime. Specifically, increasing a person's perceived self-efficacy, through mastery experiences, in managing threatening situations can lead to positive outcomes, emotionally and cognitively. The following study aims to enhance older adults' self-efficacy and reduce their fear of crime through a remote online approach. The researcher will engage older adults in an augmented psychoeducation group counseling and self-defense program. Then compare the augmented group results to older adults receiving only psychoeducation group counseling. Currently, there is little to no theoretical research evaluating the effects of augmenting a form of counseling treatment with a complementary type of treatment to boost self-efficacy in older adults. The present overview provided in Chapter 1 outlines the presenting problem and the study's overall purpose. Building upon chapter one, Chapter 2 will give a more in-depth review of the pertinent literature on fear of crime, Social Cognitive Theory, self-efficacy, and factors that influence a person's self-efficacy beliefs. An analysis of the two treatment methods and augmented approach will be provided, evaluating how each will be used to enhance the study

participant's self-efficacy (e.g., psychoeducation group counseling and self-defense training). Concluding with a brief discussion on how augmenting counseling with another treatment method could be beneficial to addressing fear of crime or effects of crime, particularly for older adults.

CHAPTER II: LITERATURE REVIEW

Introduction

According to the Federal Bureau of Investigations ([FBI], 2017), a violent crime occurs every 24.6 seconds in the United States. Even though crime has declined over five years (e.g., 2015-2019), 379.4 violent crimes occurred per 100,000 people in 2019 alone (FBI, 2019; Gramlich, 2020). Of the violent crimes committed in 2019, aggravated assault accounted for 68.2%, followed by rape at 8.2% (FBI, 2019). Of non-violent crimes, burglary accounted for 22.3% of crime followed by larceny or theft (1,549.5 per 100,000) and motor vehicle theft (219.9 per 100,000; FBI, 2019; Gramlich, 2020).

Crime statistics state that violent and non-crimes occur every minute across the US. Even though crime is at a record low in the US, and older adults are the least likely to be victims of a crime, this age group still reports a heightened fear of crime (Akers et al., 1987; Beaulieu et al., 2003; Hanslmaier et al., 2018; Rader, 2017). The effects of violent or non-violent crimes can have a long-lasting and devastating impact; emotionally, mentally, and physically, regardless of age (Beaulieu et al., 2002; Macassa et al., 2017; Rader, 2010; Rader, 2017; Whitley & Prince, 2005; Wilson-Genderson & Pruchno, 2013).

A notable concern among professionals, the implicit effects of fear of crime can have a long-lasting impact on their health and well-being. Raising the perceived self-efficacy through an augmented approach to managing fear of crime among the aging is one way to counter the effects of that fear. The following is a literature review examining fear of crime and self-efficacy in older adults. The review begins with a discussion on fear of crime, perceived risk, and the impact on older adults. Next, the study's theoretical basis, Social Cognitive Theory, is provided. The review highlights the literature on raising perceived self-efficacy through mastery

experiences to lower fear of crime. Lastly, the literature review will discuss two treatment approaches to increasing perceived self-efficacy and how an augmented treatment approach may be the most beneficial in meeting the self-efficacy needs of the person.

Fear of Crime

Brief Overview

Historically, *fear of crime* has been considered a social problem and a public health concern for the last forty years (Grinshteyn, 2013; Rader, 2017). Fear of crime is defined as the perceived fear of being a victim of crime, whether violent or non-violent (Douglas, 2019; Garofalo, 1981; Grinshteyn, 2013; Lorenc et al., 2012). Often this type of fear can be unfounded, and the probability of becoming a victim is low (Douglas, 2019; Garofalo, 1981; Grinshteyn, 2013; Lorenc et al., 2012). Fear of crime is also “an emotional reaction characterized by a sense of danger and anxiety (Garofalo, 1981)" that encompasses "the perception of the likelihood of victimization (Lorenc et al., 2012)." The feelings associated with fear of crime can also be implicit (Greenwald et al., 1998; Hopkins et al., 2015; Ouimet et al., 2017; Scarpina et al., 2018). The implicit impact of fear of crime can be challenging to express explicitly and affect a person’s mental, emotional, and physical health. (Greenwald et al., 1998; Hopkins et al., 2015; Ouimet et al., 2017; Scarpina et al., 2018).

A person’s implicit fear of crime can be linked to how they interact with their environment (Douglas, 2019; Garofalo, 1981; Hopkins et al., 2015; Lane & Kuhn, 2013; Ouimet et al., 2017). The impact of fear of crime on environmental cues may influence an individual's perception of physical harm within their environment (Douglas, 2019; Garofalo, 1981; Hopkins et al., 2015; Lane & Kuhn, 2013; Ouimet et al., 2017). The implicit influence of fear of crime can also cause a person to negatively alter or change their behavior towards engaging others or

their environment (Douglas, 2019; Garofalo, 1981; Hopkins et al., 2015; Lane & Kuhn, 2013; Ouimet et al., 2017). Such fear often adversely impacts both psychologically and emotionally and can differ based on age, gender, socioeconomic status, and other social determinants (Grinshteyn, 2013; Douglas, 2019).

The research into fear of crime has had a notable impact on U.S. policy, leading to the "tough on crime" policies of the 1980s and shaping the public view of crime or fear of crime (Douglas, 2019; Garofalo, 1981; Grinshteyn, 2013; Lorenc et al., 2012; Rader, 2017). Over time researchers have identified fear of crime as a measure of risk to a person's wellbeing (Douglas, 2019; Garofalo, 1981; Grinshteyn, 2013; Lorenc et al., 2012; Rader, 2017). The effects of fear of crime can be intensified by how likely a person believes they are at risk of becoming a victim of a crime (Douglas, 2019; Garofalo, 1981; Grinshteyn, 2013; Lorenc et al., 2012; Rader, 2017). The research on fear of crime and its impact on individuals is extensive. A brief overview of the literature pertinent to the present study will be discussed.

Initial research on fear of crime among the elderly started in the late 1970s. Before then, little to no research was conducted evaluating the effects of crime on this age group. However, this changed with the seminal work of several researchers in the field of gerontology and criminology (Antunes et al., 1977; Conklin, 1976; Cook et al., 1978; Gubrium, 1974; Lebowitz, 1975; Midwest Research Institute, 1977; Sundeen, 1977; Sundeen & Mathieu, 1976a; Sundeen & Mathieu, 1976b; Yin, 1980). The research conducted by these initial studies on analyzing the prevalence and effects of the "fear of crime" among older adults shaped how researchers and the public view this population regarding crime (Akers et al., 1987).

Many initial studies viewed the elderly as vulnerable and helpless victims living in constant fear of experiencing a violent or nonviolent crime (Akers et al., 1987; Yin, 1985). Even

though older adults were less likely to be victims of a crime, researchers continued to label this age group as an over-victimized group, heightening the fear of crime among this population (Akers et al., 1987). A critical study by Akers, La Greca, Sellers, and Cochran (1987) noted that criminal victimization was negatively related to age. Conversely, even though older adults were reportedly less likely to experience a violent or nonviolent crime did not mitigate the fact that many still feared becoming a victim of a crime. Crime statistics in the 1980s reported nationally that crime against the elderly was one-fifth the rate of younger age groups. Fundamental research into the fear of crime by Thomas and Hyman (1977), Stafford and Galle (1984), and Yin (1985) found that many older adults reported being more fearful of crime than any other age group. In a report conducted by the A-T-O Inc. in 1980, known as *The Figgie Report on Fear of Crime*, older adults were surveyed to gain further insight into this population's fear of crime (A-T-O Inc., 1980; Akers et al., 1987; Figgie, 1980).

The A-T-O Inc. noted there were two dimensions to fear, a type of "formless" fear or a generalized feeling of vulnerability and perception of safety and a "concrete" fear or the likelihood of experiencing a violent or nonviolent crime (Figgie, 1980; Keane, 1992). The first type of fear, formless fear, is viewed as an 'affective' measure of fear, and the second, concrete fear, is a 'cognitive' measure of fear. Those surveyed by A-T-O Inc. reported high on 'formless' fear than concrete fear, especially when it came to being out at night, shopping, or walking alone. The discrepancy between actual crime statics and older adults' heightened fear of crime denotes a fear-victimization paradox.

Researchers indicated the paradox was linked to older adults' perception of crime and potential for victimization rather than concrete, factual evidence. Perception of crime and this population's vulnerability to experiencing crime was compounded by crime occurring in the

older person's direct residential neighborhood or city. Meaning older adults who heard about or witnessed another older adult experiencing some form of crime led to an elevation in fear levels. Many of the same older adults reported experiencing ‘vicarious victimization,' which was found to heighten their overall fear of crime potentially. Vicarious victimization is the experience of knowing someone (e.g., friend, neighbor, family member) being the victim of a crime, witnessing a crime, or hearing about someone whose been the victim of a crime through various media (e.g., news, radio, internet) (Chiricos et al., 2000; Eschholz et al., 2003; Sartor, 2016; Skogan & Maxfield, 1981). Almost three decades later, the fear-victimization paradox is still a concern. Current research shows that although crime rates are declining, fear of crime has remained relatively stable, particularly for older adults (Douglas, 2019; Garofalo, 1981; Grinshteyn, 2013; Rader, 2017).

Individual Predictors of Fear of Crime

The following is an overview of the individual predictors that could influence a person’s fear of crime.

Gender and Fear of Crime

To explain the fear-victimization paradox, researchers have proposed gender differences as one of the strongest predictors of fear of crime. (Macassa et al., 2017). Studies examining the difference in fear of crime among women versus men find that women report a higher level of fear than their gender counterparts (Fetchenhauer & Buunk, 2005; Franklin & Franklin, 2009; Macassa et al., 2017). Prior research examining women’s fear of crime suggests this is due to women’s feeling of vulnerability and victimization, particularly when it comes to fear of sexual assault and rape (Ferraro, 1996; Fisher & Sloan, 2003; Franklin & Franklin, 2009). However, some researchers argue that men also have a high fear of crime that often goes unreported due to

a social desirability bias and society's view of masculinity (Franklin & Franklin, 2009; Macassa et al., 2017; Sutton & Farrall, 2005). Such studies indicate men do not feel safe verbalizing or sharing their fear of crime due to the belief society will view them as less masculine (Derksen, 2012; Macassa et al., 2017; Sutton & Farrall, 2005). The social concern felt by men forces many to maintain a façade of fearlessness or be dishonest about their feelings of fear (Derksen, 2012; Macassa et al., 2017; Sutton & Farrall, 2005). Researchers note men and women possess a high fear of crime, with women more than men.

Age and Fear of Crime

Another individual predictor of fear of crime is age. A significant amount of research has been done on age and fear of crime (Douglas, 2019; Garofalo, 1981; Grinshteyn, 2013; Lorenc et al., 2012; Rader, 2017). The initial research reported that older adults had a greater fear of crime than any other age group, despite being less likely to be the victim of a crime (Douglas, 2019; Garofalo, 1981; Grinshteyn, 2013; Lorenc et al., 2012; Rader, 2017). Much of the literature on age as a predictor of fear of crime indicated that older adults felt more vulnerable to crime due to changing health and body conditions (Douglas, 2019; Garofalo, 1981; Grinshteyn, 2013; Lorenc et al., 2012; Rader, 2017). Previous research viewed older women as more fearful of crime, making them more vulnerable to violent/non-violent crimes. Recent research has provided new support that older men may have a greater sense of vulnerability and fear of crime when compared to younger men than previously thought (Beaulieu et al., 2007; De Donder et al., 2005).

In a study by Franklin and Franklin (2009), a total of 2,638 older adults were surveyed, with a mean age of 56.66 years, who were majority male (n = 1,685), and from 21 cities across the eastern district of Washington were surveyed. The respondent's worries regarding

victimization, social and physical vulnerability, perceived disorder and incivility, and social integration were assessed. Each of the items evaluated was rated on a 4- to 7-point Likert scale. An ordinary least squares (OLS) regression model was used to analyze the survey responses. The study's results found that age positively affected the respondent's worry of victimization, both women and men alike. The findings also noted that a woman's fear decreased as their age increased, indicating that older women reported a lower fear rate. In contrast, male respondents reported the opposite, with fear of crime increases as the male respondent's age increased.

Franklin and Franklin (2009) posit that older women may experience decreased fear of crime because the risk of sexual violation also decreases. However, the researchers conjectured that the findings did not negate the fear of crime felt by older women or the results of previous studies. Instead, the researchers suggested that older men and women had a heightened fear of crime for differing reasons. Studies have found older men may possess a fear of crime due to an increase in poor health and decreased physical acuity (Franklin & Franklin, 2009; Macassa et al., 2017). In contrast, an older women's fear of crime may be founded upon the social conditioning of being taught to fear strangers and one's immediate surroundings. Despite where the fear originates, researchers conclude that fear of crime among older adults is relevant, regardless of its origins, and has a definite influence on an older adult's actions and behaviors (Franklin & Franklin, 2009; Macassa et al., 2017).

Other Predictors of Fear of Crime

Researchers have also identified race/ethnicity, social class or socioeconomic status, educational attainment, parental and material status, and previous victimization as other individual predictors of fear of crime (Douglas, 2019; Garofalo, 1981; Grinshteyn, 2013; Lorenc et al., 2012; Rader, 2017). Studies examining race/ethnicity and fear of crime have found that

non-whites were more fearful of crime than whites, especially if they were living in areas where crime was more prevalent (Douglas, 2019; Grinshteyn, 2013; Lane et al., 2014; Lorenc et al., 2012; Rader, 2017). The research further indicates that Hispanics are more fearful of crime than any other minority group due to language barriers and concerns with immigration status (Eitle & Taylor, 2008; ; Melde et al., 2009). The findings on social class and socioeconomic status were found to coincide. Individuals who reported a lower socioeconomic status also reported being more afraid of crime, often compounded by the social and physical vulnerability experienced by this population (McKee & Milner, 2000; Pantazis, 2000).

Regarding educational attainment, of the little research, individuals with lesser education are more fearful of crime, although this differs for women (Schaefer et al., 2006). Women with higher education than their counterparts reported greater fear of crime than even educated men (Schaefer et al., 2006). Studies also show that single people report a higher fear of crime than married couples, and parents are more fearful than non-parents (Rader, 2010; Scarbourough et al., 2010; Schafer et al., 2006; Warr & Ellison, 2000). Fear of crime was also noted to increase based on a person's history of victimization. Indicating fear of crime increased based on the type of victimization experienced by a survivor (e.g., assault, sexual assault, rape, robbery) (Chiricos et al., 2000; Eschholz et al., 2003; Ferguson & Mindel, 2007; Katz et al., 2003; Skogan & Maxfield, 1981). Survivors also reported higher fear of crime due to vicarious victimization. Hearing stories of victimization or crime, witnessing a crime, and viewing crime through the media increased their overall fear of crime (Chiricos et al., 2000; Eschholz et al., 2003; Ferguson & Mindel, 2007; Katz et al., 2003; Skogan & Maxfield, 1981).

In addition to the individual factors, fear of crime research has examined the contextual predictors of fear of crime. Primarily, the contextual predictors evaluate how living conditions,

such as neighborhoods, and the characteristics of those neighborhoods affect fear of crime. The majority of the research into contextual predictors has indicated that racial heterogeneity leads to increased fear of crime (Rader, 2010; Rader, 2017). Researchers also identified factors contributing to fear of crime as subcultural diversity, disorder and neighborhood incivilities, and social cohesion (Rader, 2010; Rader, 2017). The effects of individual and contextual factors, especially for more at-risk populations like the elderly, can have critical consequences on a person's mental, emotional, and physical state of wellbeing.

Effects of Fear of Crime

Research examining the effects of fear of crime has noted several consequences of fear of crime. The most common consequences of fear of crime include social, psychological, emotional, behavioral, and physiological consequences (Rader, 2010; Rader, 2017). The long-lasting effects of these consequences can have a detrimental impact on a person's behaviors and responses to their environment.

Psychological and Emotional Impact: In General

One of the primary psychological effects of fear of crime is the influence on a person's mental health. Researchers examining fear of crime agree that fear of crime is an 'emotion' (Rader, 2010; Rader, 2017). As an emotion, if unmanaged or unaddressed, a person's level of fear of crime can lead to increased mental health concerns, such as anxiety and depression (Rader, 2010; Rader, 2017; Whitley & Prince, 2005). Much of the research evaluating the effects of crime on mental health outcomes notes a significant relationship between negative emotions (e.g., anxiety, depression) and fear of crime (Kruger et al., 2007; Rader, 2010; Rader, 2017; Whitley & Prince, 2005). Studies by Kruger, Reischl, and Gee (2007) and Stafford, Chandola, and Marmot (2007) noted individuals who reported a higher fear of crime were twice as likely to

have a mental health issue and are often more depressed than those with a lower level of fear of crime. Researchers further agree that a feedback loop exists between fear of crime and mental health issues. A heightened sense of fear of crime can lead to a person becoming more anxious and depressed, regardless of whether fear of crime is a cause or a consequence of factors (Rader, 2010; Rader, 2017).

Psychological and Emotional Impact on Older Adults

The psychological and emotional outcomes of fear of crime can be debilitating to older adults. Numerous studies examining the debilitating effects of fear of crime note the negative mental/psychological toll on older adults, leading to increased anxiety, depression, and psychological and emotional distress (Beaulieu et al., 2004; Coker et al., 2002; Fisher et al., 2011). A study by Wilson-Genderson and Pruchno (2013) interviewed a total of 5,688 older adults with a mean age of 60.7 years (*SD* = 7.1, and over half of the respondents were women (*n* = 3,621). The purpose of the interview was to gain the respondent's perception of neighborhood safety and the effects of neighborhood violence on older adults. Covariance analysis of the data showed that researchers an individual's perception of neighborhood safety and neighborhood crime levels significantly influenced symptoms of depression in an older adult. The researchers also noted that perception of safety and neighborhood violence was more heightened if the older adult identified as a woman and reported lower income levels.

Another study by Macassa et al. (2017) examined the psychological effects of fear of crime on older adult men. The researchers collected data through a cross-sectional survey. Over 2,993 responses were obtained, with 40.4% of the respondents between 65 to 84 years of age. The data collected were analyzed using multiple logistic regressions. The study results showed a statistically significant association between the older male person's fear of crime and self-

reported psychological and emotional stress. Similar studies have reported similar results between fear of crime and decreased psychological and emotional wellbeing (Beaulieu et al., 2004; Pearson and Breetzke, 2014; Stafford et al., 2007). Beaulieu, Leclerc, and Dube (2004) surveyed 529 older adults over five years to determine their fear of crime. The ANOVA and t-test analysis results found that individuals expressing fear of crime reported statistically significantly higher depression, psychological distress, anxiety, cognitive distress, and negative affect scores. Such findings indicate that fear of crime profoundly affects an older adult's psychological and emotional well-being. Extensive research has also been conducted to examine the behavioral consequences of fear of crime by studying constrained behaviors.

Behavioral Impact: In General

A person's constrained behaviors often express the behavioral consequence of fear of crime. Considered the most common result of fear of crime, constrained behavior is understood as the precautionary measures a person engages in to address and manage potential threats of victimization or fear of crime (Lane et al., 2014; Rader, 2010; Rader, 2017). The influence of fear of crime has a ripple effect, causing a person's constrained behavior to influence how they respond to their environment (e.g., neighborhood, community, city). Among fear of crime literature, there are two types of constrained behaviors: protective behaviors and avoidance behaviors (Rader, 2010; Rader, 2017).

Protective constrained behaviors. Protective constrained behaviors are those behaviors a person engages in to ward off or protect oneself against a threat of victimization (Rader, 2010; Rader, 2017). Many constrained behaviors include having a gun or other weapon (i.e., lethal or non-lethal), taking self-defense classes, buying a watchdog, or installing home security equipment. Fear of crime researchers divide protective constrained behaviors into two categories;

constrained behaviors involving a weapon (e.g., knife, gun, pepper spray or mace, metal rod) and constrained behaviors not involving a weapon but engaging in self-protection (e.g., self-defense training, watchdog, security system, purchasing extra locks) (Campbell, 2005; De Welde, 2003; Kleck et al., 2011; Rader, 2010; Rader, 2017; Stanko, 1996; Vilalta, 2012; Wilcox et al., 2006).

Avoidance constrained behaviors. Avoidance-constrained behaviors are behaviors a person engages in to avoid certain situations because of fear of crime (Rader, 2010; Rader, 2017). Avoidance behaviors often entail avoiding certain places late at night, not going out at night, not going out alone, or refraining from visiting certain areas or places because of fear of crime (Liska et al., 1988; May et al., 2009; Mesch, 2000a; Rader, 2010; Rader, 2017; Rader & Haynes, 2014). Avoidance behaviors can also lead to an individual being hesitant to engage in leisure activities (i.e., shopping, walking, and hiking) (Liska et al., 1988; May et al., 2009; Mesch, 2000; Rader, 2010; Rader, 2017; Rader & Haynes, 2014). Especially when fear of victimization is considered more likely (Liska et al., 1988; May et al., 2009; Mesch, 2000; Rader, 2010; Rader, 2017; Rader & Haynes, 2014).

Researchers of fear of crime suggest some common characteristics among individuals engaging in constrained behaviors. The demographic factors that predict constrained behavior are female, older, and white (Beaulieu et al., 2007; Cobbina et al., 2008; De Welde, 2003; May et al., 2009; McKee & Milner, 2000; Rader, 2010; Rader, 2017). These three demographic characteristics (i.e., gender, age, and race) can influence a person to engage in constrained behavior. Researchers have also found that women are more likely to engage in avoidance and constrained behaviors than men, and older men are eight times more likely to engage in some form of constrained behavior than younger men (Beaulieu et al., 2007; May et al., 2009; Rader, 2010; Rader, 2017). De Welde (2003) noted that white women were more inclined to engage in

protective constrained behaviors (e.g., take a self-defense class) than non-white women. Although more research needs to be conducted on race and constrained behaviors, most researchers agree on the influence of fear of crime on behavior and how individuals respond to the threat of victimization. Researchers also agree that fear of crime has a psychological effect on a person and can impact a person's overall health.

Behavioral Impact on Older Adults

Recognizing the influence of fear of crime on constrained behaviors and understanding age is a demographic predictor. One can then understand why older adults engage in more avoidant or protective behaviors than other age groups (May et al., 2009). Several studies highlight the influence of fear of crime on the behavioral responses of older adults. A study by May, Rader, and Goodrum (2009) assessed the threat of victimization on gender and constrained behaviors. The researchers surveyed 2,091 individuals (female, n = 1,072) from the State of Kentucky. These respondents were primarily white (89.2%) with a mean age of 44.5 years. Of the sample, 23.1% were 56 years of age and older, and 9.5 were over 66 years of age. A multivariate linear and logistic regression analysis of the survey data revealed that engaging in avoidant or protective behaviors was associated with being older, a victim of crime, and a fear of crime or threat of victimization. The researchers also found that older men were noted to engage in more avoidant and defensive behaviors than their female counterparts.

A similar study by Ranzijn, Howells, and Wagstaff (2008) surveyed 287 participants intending to assess the fear of crime and the use of protective behaviors in a community sample. The participant sample comprised 118 men (43%) and 155 women (57%), with the majority being between 45 to 64 years of age. The survey used a short questionnaire that asked the participants to assess their fear of being a victim of a crime within their community and over

time. The results of these surveys revealed respondents reported a high level of fear of crime with regards to their neighborhood setting. A third of the respondents also reported being a victim of a crime within the last five years. The researchers also noted that older participants reported a higher level of fear, even though older adults reported being less victimized than the other age groups.

For older adults, engaging in protective or avoidant behaviors was associated with fear of crime in general, an increase in crime, fear of walking alone at night, and knowing a friend had been a victim of a crime within the last five years. The respondents, including the older adults, reported engaging in more protective behaviors (e.g., installing alarms and higher fences, installing secure locks, clearing shrubbery, and getting a dog). Respondents also reported engaging in more avoidant behaviors (e.g., not walking alone at night, not using the bus at night, not going out alone, being wary of strangers, and not using the house's front door). Based on the study's findings, the researchers concluded that older adults were more fearful than younger people, which resulted in more protective and avoidant behaviors.

Overall, both studies demonstrate the effects of fear of crime on individual behavior and older adults. The findings are not surprising since the fear of crime for older adults is compounded by the potential physical and functioning limitations and challenges older age groups face. Researchers of fear of crime have also examined the physiological consequences of fear of crime and the impact on an older adult’s health.

Physiological Impact: In general

Another fear-based consequence not often assessed is the physiological consequences of crime. Research examining the effects of fear of crime on health outcomes has noted a relationship between fear of crime and poor health (Macassa et al., 2017; Olofsson et al., 2012;

Pearson and Breetzke, 2014; Stafford et al., 2007). Individuals with poor health view themselves as susceptible to the threat of victimization and feel less capable of defending against an attacker; due to their physical limitations (Macassa et al., 2017). Feelings of vulnerability due to health concerns or limitations contribute to poor health and increased fear of crime rather than actual crime rates (Macassa et al., 2017; Pearson and Breetzke, 2014). Many individuals, like older adults, who have poor health, often feel or perceive themselves as frail and vulnerable or socially isolated and lack the necessary social support (Macassa et al., 2017; McMaster University, 2018; Pearson and Breetzke, 2014).

A study by Kim and Kang (2017) examined the effects of crime on 27 participants, with a mean age of 21.05 years (*SD* = 1.34), by showing them six clips involving safety concerns. The study used several testing measures to test a participant's fear of crime. The study used an electroencephalographic (EEG), electrocardiographic (ECG), and galvanic skin response (GSR) to test their physical response. At the same time, a survey on fear of crime was used to test their overall perceived fear. The researchers used multiple analyses to analyze the data, which included: t-tests analysis, ANOVA analysis, a Mann-Whitney U test, and a Kruskal-Wallis test. The study's findings noted that participants with a higher perceived threat of victimization or fear of crime indicated more significant physical stress. The findings by Kim and Kang (2017) were supported by similar studies noting high arousal associated with fear of crime or threat of victimization directly affects a person's physiological wellbeing. Similar has been indicated for older adults regarding the physiological impact of fear of crime.

Physiological Impact on Older Adults

Similar to the effects of fear of crime on a person emotionally, mentally, and behaviorally, researchers have noted the physiological consequences of fear on the body. A study

by Macassa et al. (2017) found a statistically significant relationship between fear of crime and self-reported poor health. Of the respondents surveyed by Macassa et al. (2017), those 65-84 who reported a higher fear of crime also reported a higher level of poor health. The respondent's age was also found to have increased the odds of reporting greater fear of crime and poor health issues compared to younger counterparts. Like Macassa et al. (2017), similar studies have noted that fear of crime may negatively affect an older person's physical health and well-being. Another study by Won, Lee, Forjuoh, and Ory (2016) found a link between health-related outcomes for older adults and neighborhood safety factors or fear of crime.

Won, Lee, Forjuoh, and Ory's conclusion was based on a literature review conducted on over thirty-two journal articles published between 2000 and 2014. Of the thirty-two articles, sixteen specifically examined the association between neighborhood safety and fear of crime on health status, and over half were focused on older adults (40.6%; $n = 13$). Upon analysis of the literature review, the researchers noted that crime and fear of crime were significantly associated with health outcomes and physical function. In regards to physical function, the researchers found the perception of neighborhood safety or lack thereof was related to a person's functional decline and mobility disability, particularly for older adults (Clark et al., 2009; Latham and Clark, 2013; Sun et al., 2012; Won et al., 2016). Crime-related safety or the lack thereof was also noted to affect health status and physical function. Such studies indicate that fear of crime, regardless of the experience of crime or crime ratings, can influence an older person's physiological wellbeing. Another predictor of fear of crime and perceived risk is the implicit fear one experiences without explicit knowledge.

Influence of Implicit Fear versus Explicit Knowledge

Research examining the implicit influence of emotions denotes that such emotions as fear can be triggered or automatically activated without the person's awareness (Greenwald et al., 1998). A study by Greenwald et al. (1998) noted emotions felt implicitly, like fear of crime, can manifest into judgments, bias, and actions without causation. A person may fear being the survivor of a crime or perceive being at a higher risk of experiencing a crime without any explicit reasoning for feeling this way. The significance of automatic associations can lead to heightened fear, misunderstandings of others, or misconceived notions about one's environment (Greenwald et al., 1998; Hopkins et al., 2015; Lundberg et al., 2018). Therefore, research on implicit fear denotes explicit knowledge or awareness is not necessary to experience the emotion (Hopkins et al., 2015). Instead, a fear response can be conditioned by stimuli gained from implicit learning and the absence of explicit knowledge (Hopkins et al., 2015).

Implicit Fear on Older Adults

The influence of implicit fear on older adults can often lead to avoidance behaviors and impact their interaction with others. A study by Erikson et al. (2022) evaluated implicit danger associations interacted with explicit recognition of dispositional judgments and decision-making. The study also sought to examine age differences by examining the interaction between older adults versus younger age groups. The researchers maintained that associating everyday objects with one's safety was an important cognitive development for maintaining one's wellbeing. Face recognition and learning based on a person's race, ethnicity, sex, and familiarity is often how we identify if someone is safe or not. The researchers call this 'facial categorization,' where a person acquires implicit knowledge about others. The implicit information gathered is encoded within a person's memory and serves for future safety assessment when encountering an unfamiliar face

or person. However, even though implicit knowledge is not often problematic. The information encoded through facial categorization can lead to negative outcomes, like stereotyping, negative judgments, and biases. The implicit information can also prime misidentification of threatening situations by viewing others (i.e., black versus white men) as more dangerous than another. The misidentification of common objects on a person (i.e., cell phones, wrench, hammers, or other tools) deemed threatening can lead to the misinterpretation of a situation.

Erikson et al. (2022) sought to determine the impact of implicit associations on explicit recognition and how this influenced an older adult's judgment and decision-making. The study evaluated 68 young adults (n = 36, women) with a mean age of 19.61 and 43 older adults (n = 34, women) with a mean age of 72.79. The study had three groups (i.e., older age group, young adult-full attention group, and young adult-divided attention group) examine images of both faces and objects. The faces included were primarily male faces, 90-black faces, and 90-white faces (N = 180, male faces). The objects were 48-images of objects such as guns, knives, kitchenware, and hand-held objects. The images of faces were paired equally with object images, creating 20-image pairs.

All the participants engaged in a study phase completed 12-test trials where an equal number of face and object images were presented. The younger participants in the divided condition were given a secondary task involving a series of discriminable frequency tones. The tones were meant to serve as the divided attention conducted during the study phase. Upon completion of the study phase (i.e., where an equal number of face and object images were presented), participants engaged in an explicit memory task or testing phase (i.e., face test, object test, and association test). Participants were provided six old and six new images (i.e., face and object images). In the association, test participants were also offered six-intact and six-

recombined images to identify. The final test was the implicit association test. Participants were asked to categorize face images by race and a provided word (i.e., nasty, terrible, threatening, good, peace, wonderful).

The study by Erikson et al. (2022) aimed to evaluate if threatening objects were associated with unfamiliar faces or various races (i.e., black or white). The study results revealed the older adult participants (i.e., white sample) provided an own-race bias regarding face images. Specifically, the older adult participant's identified 'white' faces as 'good' and less threatening than non-white faces. However, the older adult participants did not primarily pair faces of color with threatening objects. Instead, the older adults were less discriminate when pairing objects and faces, and implicit fear of a threat (i.e., unfamiliar face or threatening object) was not always race-related. Therefore, the researchers concluded older adults might make 'false alarm errors' out of an implicit fear that produces a misidentification of a threatening situation. The findings coincide with the implications and studies regarding older adults' fear of crime and perceived risk of a crime. Even though older adults may be less likely to be survivors of a crime, they have a higher fear of being victims of a crime. Thus, their perception of crime may be linked to their implicit fear of crime. The research behind the predictors and corresponding effects of being fearful of crime has led to several theoretical models used to explain such fear.

Fear of Crime Models

Three Dominant Fear of Crime Models

The extensive research on crime has given rise to numerous models to explain a person's heightened fear of crime (Ferraro, 1996; Franklin & Franklin, 2009; Hale, 1996). Each of these models falls into one of two categories. The first category incorporates models based on theories focused on specific facilitators of fear, such as vulnerability and the disorder of one's local

surroundings (Franklin & Franklin, 2009; Rader, 2010). Each of these facilitators provides a rationale for a person's increased fear of crime. The second broad category includes models that examine characteristics that inhibit or reduce fear of crime, like social ties and cohesion, collective efficacy, and community attachment (Franklin & Franklin, 2009; Rader, 2010).

Three more prominent models within these two categories include the social integration model, disorder model (i.e., incivilities within neighborhoods), and fear of vulnerability model (Franklin & Franklin, 2009). A considerate amount of fear of crime research has focused on the latter model, the fear of vulnerability model. Each of these models examines the influence of vulnerability on one's feelings of fear (Franklin & Franklin, 2009). The fear of vulnerability model is divided into physical vulnerability and social vulnerability. Physical vulnerability is defined as one's perception of increased risk of a physical threat or assault (Franklin & Franklin, 2009). Such vulnerability is derived from a person's perceived inability to fend off an attacker due to various issues (e.g., limited mobility issues, lack of physical strength, competence, health) (Franklin & Franklin, 2009).

The two most common proxy measures of physical vulnerability are age and gender, often expressed in physical strength and mobility, or lack thereof (Franklin & Franklin, 2009). Fear of crime research proposes that age and gender are related to increased physical risk since older adults are less mobile and less physically robust than their younger counterparts. Women are also seen as more physically vulnerable than their male counterparts due to being deemed physically weaker. The determinants of gender and gender differences have been a primary focus of research into fear of vulnerability.

Fear of crime research into social vulnerability proposes that individuals report a heightened fear of crime based upon an increased exposure to crime and victimization (Franklin

& Franklin, 2009). Much of the research into social vulnerability has identified poverty, race, education, marital status, and limited access to resources as key determinants impacting a person's fear of crime (Franklin & Franklin, 2009). For instance, living in a low socioeconomic neighborhood that is racially heterogeneous with a higher crime rate could increase the likelihood of victimization (Franklin & Franklin, 2009). Moore and Shepherd (2006), two fear of crime researchers studying social vulnerability, concluded that fear of crime was greater for property crimes, which older adults primarily experience, than personal crimes.

Reciprocal Nature of Fear of Crime

Historically, fear of crime has been viewed as a *perceived risk* when it comes to the risk of a person being the victim of a crime. In the last twenty years, some researchers have argued that fear of crime should be characterized as an emotional response to the threat of victimization (Rader, 2004; Rader, 2010; Rader, 2017). Researchers note that explicit awareness or perceived risk of crime is not always required to provoke feelings of fear about crime (Greenwald et al., 1998; Hopkins et al., 2015; Lunberg et al., 2018; Ouimet et al., 2017; Rader, 2010). The shift in *how* fear of crime is defined has led some researchers to consider one's perception of crime as linked to their belief system (Rader, 2010). Specifically, the likelihood of experiencing a crime (i.e., perceived risk) (Rader, 2010).

Hence, researchers view a person's perceived risk of victimization as an outcome of their fear of crime (Rader, 2004; Rader, 2010; Rader, 2017). Other researchers have also argued that a person's behavior is tied to one's fear of crime. Indicating a person's fear of crime could lead to constrained behaviors (i.e., precautionary measures), such as avoiding certain places or activities at night (i.e., avoidance behaviors) or buying a gun and taking self-defense classes (i.e., protective behaviors) (Liska et al., 1998; Rader, 2010; Rader & Haynes, 2014; Rountree, 1998;

Wilcox et al., 2006). These components (i.e., emotions, cognition, and behavior) are viewed as predictors of fear and play a vital role in the perceived threat of victimization. Fear of crime researchers further contends that fear of crime alone should not be the sole focus of research. Instead, a three-pronged approach should be used to study fear of crime and the perceived threat of victimization (Rader, 2004; Rader, 2010; Rader, 2017).

The threat of victimization is comprised of three indicators: emotionally (i.e., fear of crime), cognitively (i.e., perceived risk), and behaviorally (i.e., constrained behaviors) (Rader et al., 2007; Rader, 2010; Rader, 2017). These three indicators provide a framework for how a person manages a perceived threat of victimization. Each indicator is vital to measuring fear of crime and the perceived threat of victimization, showing the reciprocal nature of cognitive and behavioral factors, and providing a more accurate view of fear of crime (Gray et al., 2011; Macassa et al., 2017; Rader et al., 2007). The correlative approach to studying fear of crime views fear as a determinant of a person's perceived risk and constrained behaviors (Rader, 2010; Rader, 2017). Viewing fear of crime in a reciprocal nature provides a more accurate view of the threat of victimization concept (See Figure 1).

For older adults, fear of crime is tied to the perceived risk of victimization, limiting how older adults interact with the world and others around them. The older adult may avoid certain activities and choose not to engage socially out of fear of being a victim of a crime. Therefore, an older adult may engage in certain constrained behaviors (i.e., avoidance or protective behaviors) based on their fear of crime and victimization. Similar to the reciprocal nature of fear of crime, a Social Cognitive Theory provides a view of the reciprocal influence of various factors on a person's behavior.

Figure 1:

Reciprocal Nature of Fear of Crime

Figure 1: Provides a visual representation of the reciprocal nature between Fear of crime (e.g., emotional factors), perceived risk of crime or victimization (e.g., cognitive factors), and constrained behaviors (e.g., behavioral factors.

Social Cognitive Theory (SCT)

Overview of SCT

Social Cognitive Theory (SCT) is a synthesis of several models of behavior change, including Behavioral Learning Theory (e.g., learning is linked to environmental stimuli) and Cognitive Learning Theory (e.g., learning is by psychological factors) (Glanz, 2001; LaMorte, 2018). During his early theoretical endeavors with Social Learning Theory (SLT), Bandura noted

previous behavioral models relied heavily on a person's environment to explain behavior, thus failing to explain the learning process or other factors influencing behavior (Inman, 2001).

As Bandura's theoretical beliefs regarding learning and human agency evolved, he identified another flaw in SLT. He recognized a disconnection between behavior models of change and the influence of psychological processes. Specifically, he believed behavior theorists failed to consider or partially study critical psychological processes involved in learning (Inman, 2001). To address this disconnect, Bandura began synthesizing concepts and methods from various emotion, behavioristic, and cognitive behavior change models. Bandura's goal was to link any change and development to an adult's psychosocial functioning (Bandura, 1986; Bandura, 1989; Bandura, 1993; Holleb, 2016; Inman, 2001). His theoretical endeavors culminated in his seminal work titled *In Social Foundations of Through and Action* (1986), from which the concept of SCT was formally introduced (Bandura, 1986; Inman, 2001).

Still, he questioned whether or not the influences of psychological processes were voluntary or involuntary. Also, whether or not a person can exercise a measure of control over their emotional, behavioral, and cognitive processes? Bandura answered this question by explaining the human agency's role in SCT. Understanding the role of human agency is fundamental to understanding the current study's application of SCT and any future constructs discussed.

SCT and Human Agency

A theoretical foundation of SCT is the agentic perspective that each person can self-develop, self-regulate, self-reflect, and be proactive (Pajares et al., 2009). The concept of human agency emphasizes that individuals can promote change through effort in themselves or their situation (Bandura, 1989a). Meaning a person can exert some form of control over their thought

processes, actions, and motivational processes (Bandura, 1989a; Inman, 2001). In *Human Agency in Social Cognitive Theory,* Bandura (1989a) stated that some of the core mechanisms of human agency are fundamental to creating behavior change. Mechanisms such as observational learning, self-reflection, and self-regulation allow for actions to be potentially self-determined and influence a person's behavior, actions, and motivation (Bandura, 1989a). The introduction of human agency to the theory provided the foundation for explaining how a person engages in behavior change. Another question arose, how did the identified mechanisms or factors affect human agency and influence behavioral change? Bandura's model explained *how* these self-generated components make a causal contribution to behavior change through the triadic reciprocal causation model.

SCT and the Triadic Reciprocal Causation Model

To explain how human agency and its core mechanisms influence behavior changes, Bandura (1986; 1989) introduces a three-way model he calls the *triadic reciprocal causation model*. The model is the foundation of SCT and counters the one-sided determinism model often used to explain human behavior (Bandura, 1989). In favor of a causation model, Bandura views mechanisms like cognition, behavior, and one's environment as determinants of human behavior (Bandura, 1989). He contends that human behavior is shaped by personal, environmental, and behavioral factors already learned (Bandura, 1989; LaMorte, 2018). Personal factors or internal dispositions are thoughts, feelings, or learned experiences (Bandura, 1989; LaMorte, 2018). Environmental factors are social and external in context, and behaviors are stimuli responses used to achieve desired goals (Bandura, 1989; LaMorte, 2018). The interaction between these determinants is reciprocal and bi-directional, so each influences the other (Bandura, 1989). See Figure 2 for a visual of the triadic reciprocal nature of causation. Suppose a person's

environment is inundated with criminal activity. A person is then more likely to alter their behavior (e.g., a fear of the crime or criminal activity) based on their environment.

Personal factors (e.g., beliefs, thoughts, feelings, and various learned experiences) influence a person's behavior. If a person believes or feels their environment is unsafe, whether their perception is accurate, these feelings/beliefs will influence how they interact in their environment. Still, Bandura concludes that determinants such as personal factors, environmental factors, and behavior factors do not equally influence one another (Bandura, 1989). Instead, some may have a more considerable impact than others (Bandura, 1989). A person's expectations, emotions, and beliefs can be influenced by social interaction through modeling or social persuasion (Bandura, 1986; Bandura, 1989).

Thusly, a person can develop a greater fear of crime even though statistics report that this age group is less likely to be a victim of a crime. Conversely, suppose an individual's fear of crime is high. Their perception of their environment, age, gender, social status, or even race can influence how they respond to their environment and how others interact or engage with them. Due to the reciprocal nature of these three determinants, individuals are products of the world around them and responsible for creating that world (e.g., environment) (Bandura, 1989; p. 4). An individual selects certain activities and persons to engage in/with based upon preference. A person creates, establishes, and influences their environment through their behaviors and actions (Bandura, 1989).

Figure 2:

Triadic Reciprocal Causation Model

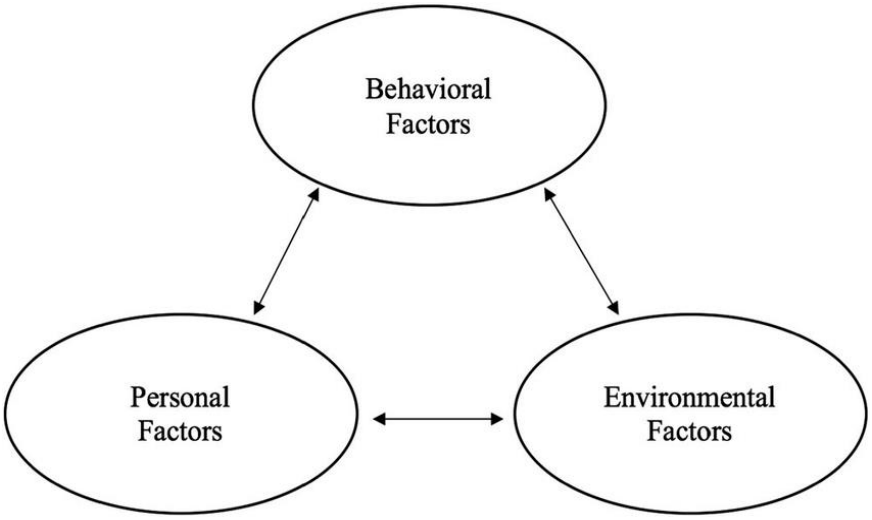


Figure 2: The following chart provides a visual representation of the triadic reciprocal causation model. The model demonstrates the dynamic interplay between personal factors (e.g., thoughts and feelings), environmental factors (e.g., social and external context), and an individual's behavior and how each influences one another.

Behavior then determines the effects of environmental influences, shaping which behaviors are initiated or developed over time (Bandura, 1989). Additionally, personal factors are influenced by ecological and behavioral factors and influence behavior and the shaping of one's environment. Understanding this interplay between personal, environmental, and behavior is essential in understanding behavior change. According to Bandura, several key factors can influence each determinant of the causation model and promote or hinder new behavior learning.

Recognizing and understanding these key constructs will further assist in realizing how to encourage behavior change.

A Few Key Constructs that Promote or Hinder Behavior Change

Some of the primary influences on behavior and key constructs of SCT include observational learning, reinforcements, self-regulation, and self-efficacy (Bandura, 1988; Bandura, 1989a; Bandura, 1991; Bandura, 2001; Glanz, 2001; LaMorte, 2018). These constructs can influence a person's willingness to learn a new behavior/activity, engage in a behavior/activity, or discontinue the behavior change altogether. These key constructs also influence personal and environmental factors based on the individual's behavior.

Observational Learning

Observational learning is founded on the notion that individuals learn by watching others and the actions/behaviors others model. The idea of *modeling* plays a vital role in observational learning for SC theorists. Much of Bandura's thoughts on modeling stem from the Bobo Doll Experiments he conducted between 1961 and 1963 (Bandura et al., 1961; Bandura et al., 1963; Bandura, 1988a; LaMorte, 2018). The experiment involved children observing an adult model aggressive behavior towards a Bobo doll by hitting it with a hammer or throwing it (Bandura et al., 1961; Bandura et al., 1963; McLeod, 2014). Upon evaluating the children's reaction to the Bobo doll after observing the adults, Bandura and the other researchers noted many of the children responded aggressively toward the doll, imitating what they had seen (Bandura et al., 1961; Bandura et al., 1963; McLeod, 2014).

Based on his experimental findings, Bandura and fellow researchers concluded that observational learning and the corresponding act of 'modeling' were essential to learning and behavior acquisition. Bandura (1986; 1988a) maintained that effective knowledge acquisition

and learning were linked to effective modeling. Individuals then gain knowledge and learn behaviors based on the actions or behaviors observed and modeled by others (Bandura, 1988a). He asserted that effective observation of proper modeling influenced learning various rules and strategies for interacting within their environment (Bandura, 1988a). Such learning is essential for gaining insight into the desired behavior, outcome expectancies, and motivational processes (Bandura, 1986; Bandura, 1988a).

Henceforth, if a person can observe and view others performing the identified behavior successfully, then the individual who observed the modeled behavior is more likely to reproduce the actions resulting in the desired behavior (Bandura et al., 1961; Bandura et al., 1963; Bandura, 1986; Bandura, 1988a; LaMorte, 2018). The observation of successful modeling is essential to the process of learning. It increases the chances of the observer performing the desired behavior (Bandura et al., 1961; Bandura et al., 1963; Bandura, 1977; Bandura, 1986; Bandura, 2004; LaMorte, 2018; McLeod, 2014; McLeod, 2016). Bandura contends a person learns by observing the consequences of another's behavior, leading to a change in behavior (Bandura et al., 1961; Bandura et al., 1963; Bandura, 1977; Bandura, 1986; Bandura, 1990; Bandura, 2004). Behaviors are then reinforced based on the positive or negative experiences one encounters during the learning process, influencing the behavioral change (Bandura, 1976; Bandura, 1996; Brauer & Tittle, 2012; LaMorte, 2018).

Reinforcements

The internal and external responses to behavior play a key role in whether or not a person will continue engaging in or learning the behavior (Bandura, 1976; Brauer & Tittle, 2012; LaMorte, 2018). These responses initiate reinforcement, which can be self-initiated or initiated in the environment (Bandura, 1976; Brauer & Tittle, 2012; LaMorte, 2018). If a person

experiences positive reinforcement, they are more likely to continue engaging/learning the behavior. Conversely, if the reinforcement is negative or elicits negative consequences, the person is more likely to discontinue the behavior. The consequences and reinforcements experienced can affect a person's overall environment (e.g., social and external context) (Bandura, 1976; Brauer & Tittle, 2012; LaMorte, 2018). If a person witnesses someone being assaulted, their heightened fear of crime regarding their environment is reinforced. Bandura views each construct's influencing a person's learning and behavior execution as reciprocal (Bandura, 1976; Brauer & Tittle, 2012; LaMorte, 2018). For Bandura, each construct's influence has a more significant impact that extends beyond the person, affecting their environment (Bandura, 1976; Brauer & Tittle, 2012; LaMorte, 2018). The final SLT construct to be discussed, reciprocal determinism, is a crucial component of SCT. For SL theorists and later SC theorists, this interplay reinforces a person's behavior, influencing their desire to engage in a future behavior or action over time. Reinforcement then provides the interplay between behavior and environmental factors and vice versa.

Self-Regulation

Once a behavior has been observed, reinforced, and fully learned, self-regulation allows an individual to self-govern and mediate purposeful action (Bandura, 1988b; Bandura, 1991). As a source of behavior change, self-regulation consists of three core components that act as a self-governing system (Bandura, 1988b; Bandura, 1991; Tougas et al., 2015). Those components are *self-monitoring*, *self-judgment,* and *self-evaluation*. Self-monitoring's first component allows a person to monitor the behavior and information regarding needed changes for future progress (Bandura, 1988b; Bandura, 1991; Tougas et al., 2015). The second component provides a judgment of the behavior based on personal standards, situational factors, and the activity or goal

to be achieved (Bandura, 1988b; Bandura, 1991; Tougas et al., 2015). The final component, self-evaluation, provides the affective information and self-reactions to the already judged performance (Bandura, 1988b; Bandura, 1991; Tougas et al., 2015). Using these components to self-regulate behavior allows a person to make changes when necessary to the behavior to achieve more significant outcomes. Self-regulation is beneficial when the goal is to improve or build upon a health-related behavior or outcome (Tougas et al., 2015).

Each of the key constructs of SCT discussed above; observational learning, self-regulation, and reinforcement play an essential role in one's ability to exert control over cognitive and affective structures (Bandura, 1986; Bandura, 1989a; Bandura, 1990; Bandura, 1991; Bandura, 1993; Inman, 2001). The final construct to be discussed is the concept of self-efficacy. According to Bandura (1982; 1986; 1990; 2004), self-efficacy is the number one mechanism influencing behavior above all others. Understanding how self-efficacy elicits behavior change and can promote the learning of a new behavior is foundational to the present study.

Self-Efficacy (SE): The Primary Influence on Behavior

A crucial component to acquiring the desired goal, action, or behavior, per Bandura, is the notion of self-efficacy (Bandura, 1982; Bandura, 1986; Bandura, 1990; Bandura, 2004). Perceived self-efficacy is essential for a person to make a positive behavioral change towards learning a new behavior or seeking out new goals, actions, and behaviors to engage in (Bandura, 1986; Bandura, 1990; Bandura, 2004). The concept of self-efficacy is a foundational component of Social Cognitive Theory for understanding the influence of personal judgment on human behavior.

Self-Efficacy (SE)

Since 1986, Bandura and fellow Social Cognitive theorists have worked diligently to understand the role and interplay of self-efficacy, and in doing so, various definitions have arisen. The father of SCT, Bandura (1982; 1986; 1990), defines self-efficacy as a person's belief in their abilities to complete a particular task to obtain the desired outcome. Bandura further views self-efficacy as a "core belief that one has the power to produce desired effects by one's actions, [without which] …one has little incentive to act or to persevere in the face of difficulties (Benight & Bandura, 2004, p. 1131)." Self-efficacy, then is the "beliefs people hold about their future capabilities to successfully handle a challenge (Bandura, 1993; Holleb, 2016). Self-efficacy is likewise a "person's confidence in their ability to take action and persist despite obstacles or challenges (Glanz, 2001, p. 86)." A person's perceived self-efficacy is then a primary factor that influences and assists in defining a person's choice of action, feelings, or behavior towards that action, a newly desired behavior, or goal wished to be acquired (Bandura, 1986; Bandura, 1990; Bandura 2004). Self-efficacy also facilitates change based upon the person's efficacy beliefs. Efficacy beliefs enable or hinder a person's ability to adapt to change and learn new skills or actions to achieve a goal (Bandura, 1986; Bandura, 1990; Bandura, 2004). The basis of self-efficacy then is judgment.

A person's judgment regarding a course of action can be detrimental to completing a task or obtaining the desired outcome (Bandura, 1982, p. 22). Thus, "perceived self-efficacy is concerned with the judgment of how well one can execute courses of action required to deal with the prospective situation (Bandura, 1982, p. 22). To perform a course of action, engage in change, or learn a new behavior is strongly linked to a person's perceived belief regarding their abilities and less about the person's actual performance or capabilities (Bandura, 1990;

Reisenhofer et al., 2014). A person with a strong sense of self-efficacy towards a goal, action, or behavior is more likely to attempt a new behavior, change, or a course of action and persevere (Bandura, 1982; Reisenhofer et al., 2014). If a person has a low perceived self-efficacy, it is more difficult for them to undertake or maintain a change. For SC theorists, self-efficacy is a mechanism controlling human behavior and action. Raising a person's perceived self-efficacy is fundamental to fostering change, learning a new behavior, completing a task, or achieving a goal (Bandura, 1990; Bandura, 2004).

Bandura (1986; 1990; 2004) further argued that when a person's belief in their abilities is raised, they will seek to achieve more challenging goals. Bandura also maintains that raising self-efficacy will increase the likelihood of attempting new activities or new behaviors. Bandura (1990; 2004) argues that a person's perceived self-efficacy regulates three mechanisms that influence behavior; motivational, cognitive, and affective processes. Perceived self-efficacy can be foundational (e.g., mentally, emotionally, and motivationally) in a person's ability to achieve the desired action, goal, or behavior (Bandura, 1986; Bandura, 1990). Only two of the three mechanisms will be discussed; cognition and affect. The reason for discussing these two mechanisms is the study's focus, which is to address behavior changes associated with cognition and affect related to fear of crime.

Self-Efficacy's Influence on Cognition.

Using cognitive factors to raise perceived self-efficacy can result in perceived control over identified events, influencing a person's belief about personal achievement. Bandura (1990; 1993; 2004) also maintains that motivational processes are linked to cognitive processes. A person's perceived control over a task, action, goal, or behavior can increase or decrease the person's motivation based on perceived self-efficacy. Self-efficacy is a mechanism guiding a

person's motivation to promote new action or complete an existing action (Bandura, 1990; Bandura, 1993; Bandura, 2004). Bandura (1990; 1993; 2004) argues that a person's self-efficacy towards an identified action or behavior must be raised to be motivated to attain the desired goal or learn the new behavior.

Self-Efficacy's Influence on Affect and Emotions

Social Cognitive Theorists also claim that human attainment and positive well-being are linked to perceived self-efficacy (Bandura, 1990; Bandura, 2004). A person's positive and negative affective state can be influenced by beliefs founded on their perceived self-efficacy. Thus, a person's ability to handle taxing situations depends on the degree of an individual's self-efficacy. Bandura (1990; Springer, 2016) contends that low perceived self-efficacy leads to a person's inability to respond or deal effectively with stressful or threatening situations. The reciprocal nature of self-efficacy can also negatively affect a person's emotional state. Low perceived self-efficacy could make a person more susceptible to a negative affective state (e.g., depression, anxiety, fear), while high perceived self-efficacy can be a protective factor (Bandura, 1990; Bandura, 2004). Failure to address the issues associated with low self-efficacy can lead to more clinical problems, such as lowered self-esteem and increased anxiety and depression (Bandura, 1990; Bandura, 2004). One of the number one sources of information that can enhance or decrease a person's perceived self-efficacy is the experience of mastery experiences.

The Four Key Factors Influencing Self-Efficacy Beliefs

Methods of Enhancing Self-Efficacy

Mastery Experiences

Theorists ascribing to SCT assert the best way to increase a person's perceived self-efficacy is by offering mastery experiences (Bandura, 1990; Bandura, 2004). Mastery

experiences, if successful, can influence an individual to pursue more challenging experiences (Bandura, 1990; Bandura, 2004). Additionally, successful experience of mastery experiences can lead to further mastery experiences, which fosters continued self-efficacy development. The cycle between seeking mastery experiences and raising perceived self-efficacy positively mediates motivation and reasoning. Specifically, the more a person's self-efficacy is increased due to repeated success of mastery experience, the more likely the person will be motivated to seek out and achieve more complex goals, actions, or behaviors (Bandura, 1990; Bandura 2004; Springer, 2016). The same can be noted about a person's reasoning. The more a person successfully performs an action, goal, or behavior due to mastery experiences, increasing their self-efficacy, the more likely they believe they *can* achieve more complex actions, goals, or behaviors (Bandura, 1990; Bandura 2004). Repeated success is essential to promoting positive change in a person's behavior by raising their perceived self-efficacy (Springer, 2016).

Self-efficacy is central to a person's overall mental and physical well-being and interconnected with human functioning and cognition (Bandura, 1990; Bandura, 2004). Utilizing mastery experiences to raise a person's perceived self-efficacy is essential to promoting and strengthening human cognition (e.g., self-belief, motivation), human functioning (e.g., performance), and even human attainment. Thus, Social Cognitive Theorists conclude that human achievement and personal well-being are enhanced by raising perceived self-efficacy (Bandura, 1993; Sanders & Murray, 2018). Apart from mastery experiences, SC theorists recognize three other factors influencing a person's perceived self-efficacy: vicarious learning, verbal persuasion, and interpretation of physiological/affective states (Bandura, 1990; Bandura, 2004). Understanding these sources of information that shape self-efficacy beliefs are essential to promoting and knowing how to raise perceived self-efficacy.

Vicarious Learning

Vicarious learning is defined as “learning by observing others which serves as an indirect experience, such as through videos, simulation, observations, stories, imagined situations, and conversations (Bandura, 1986; Bandura, 1993; Holleb, 2016)." Like the concept of modeling and observational learning, a person can learn vicariously by watching or viewing another person engage in an action, behavior, or work to attain a goal (Bandura, 1993). This form of learning is second only to mastery experiences in influencing a person's self-efficacy beliefs (Bandura, 1986; Bandura, 1989; Bandura, 1990; Bandura, 1993; Holleb, 2016). The information obtained through vicarious learning can either enhance or hinder a person's perception of successfully engaging in the same action, behavior, or goal. Therefore, if a person views someone engaging in a behavior successfully, they may believe and expect that they can do so. The information gained from vicarious learning is considered indirect, allowing a person to connect and link behaviors with outcomes or consequences (Bandura, 1986; Bandura, 1989; Dutt, 2010; Holleb, 2016; Roberts, 2010).

The information gained from the outcome or consequence experience can positively or negatively reinforce future behavior (Bandura, 1986; Bandura, 1989; Falcone, 2012; Holleb, 2016). Vicarious learning ultimately allows for creating and obtaining knowledge about behaviors (i.e., acceptable and attainable), gaining insight into future success, and avoiding potential mistakes (Bandura, 1986; Bandura, 1989; Holleb, 2016). For instance, an older adult with a high fear of crime may watch a news story about a crime committed in a particular part of the city or their town. Through vicarious learning, the older adult may avoid leisure or business ventures in that part of town and engage in restrictive behaviors. Vicarious learning can result in conditioning that leads to self-efficacy beliefs that can hinder or enhance a person’s future

behavior, beliefs, actions, or goal attainment (Bandura, 1986; Bandura, 1989; Holleb, 2016). Another factor that can influence a person's self-efficacy beliefs is verbal persuasion.

Verbal Persuasion

Verbal persuasion is using "words meant to influence the thinking of others (Bandura, 1993; Holleb, 2016)." Verbal persuasion is also used to persuade and increase a person's belief that they can complete a task, goal, action, or behavior (Bandura, 1986; Bandura, 1989; Bandura, 1993; Holleb, 2016). Also referred to as *social persuasion*, this mediating factor on a person's self-efficacy beliefs is a form of engagement that informs a person about their performance or future success based on another's verbal statements (Bandura, 1986; Bandura, 1989; Holleb, 2016; Warner et al., 2011). The information gained from verbal persuasion that leads to self-efficacy beliefs can come from directions, advice, performance feedback, pep talks, praise, suggestions, and even encouragement given to an individual verbally (Goddard et al., 2004; Holleb, 2016; Zulkosky, 2009). Verbal persuasion can be effective depending on how the information is given or perceived and the impact the delivery has on a person's perceived self-efficacy (Bandura, 1986; Bandura, 1989; Holleb, 2016). Another method for raising perceived self-efficacy is the interpretation of psychological factors.

Interpretation of Physiological and Affective States

The interpretation of physiological and affective states involves using emotional and physical states to evaluate one's behavior, which reciprocally influences self-efficacy (Bandura, 1990; Bandura, 2004; Sanders & Murray, 2018; Springer, 2016). Daily, individuals use multiple factors to gauge self-efficacy. Similar to the other factors discussed (e.g., vicarious learning, verbal persuasion, and mastery experiences), information gained from a physiological or emotional response can provide insight into an individual's perceived abilities, time and effort

expended, and task difficulty (Bandura, 1986; Bandura, 1989; Springer, 2016). Common physiological/emotional responses experienced are anxiety, stress, fatigue, and mood affect (Bandura, 1986; Bandura, 1989; Springer, 2016). Depending on the intensity of the physiological or emotional response, a person's self-efficacy can be negatively or positively affected (Springer, 2016). Hence, a person's self-efficacy level can notably impact their physiological/emotional state when learning a skill or behavior and achieving a new task or goal (Bandura, 1986; Bandura, 1989; Springer, 2016). Conversely, a low sense of self-efficacy can increase anxiety, stress, and fatigue. A person with a high sense of perceived self-efficacy will not be influenced by any physiological or emotional arousal (Bandura, 1986; Bandura, 1989; Springer, 2016).

Each of the four factors discussed (e.g., mastery experience, vicarious learning, social persuasion, and psychological factors) has a mediating effect on self-efficacy, ultimately affecting the triadic reciprocal relationship between a person's behavior, personal factors, and environment. These factors are essential when striving to raise a person's perceived self-efficacy, especially when offering mastery experiences. Utilizing methods (i.e., mastery experiences, vicarious learning, verbal persuasion) to raise a person's self-efficacy can influence a person's response (e.g., actions, thoughts, feelings) towards fear of crime associated with various social determinants (e.g., crime within the environment, neighborhood). Therefore, further discussion of *how* raising perceived self-efficacy can counter a person's fear of crime must follow.

Applying SCT to Addressing Fear of Crime

Raising SE: Mitigating the Effects of Fear of Crime

Increasing a person's perceived self-efficacy can have a marked impact on their ability to effectively address fear of crime (Liebling, 2006; Ozer & Bandura, 1990; Yuan et al., 2017). Researchers examining the effects of self-efficacy on fear of crime note that as self-efficacy

increases, an individual's physical and emotional responses to fear of crime decrease (e.g., personal safety or property) (Liebling, 2006; Ozer & Bandura, 1990; Yuan et al., 2017).

A study by Yuan, Dong, and Melde (2017) noted the impact of fear of crime on a person's perceived self-efficacy. The researchers noted that lower self-efficacy resulted in a person engaging in defensive and avoidance behaviors (Melde et al., 2014; Yuan et al., 2015). Some researchers noted that engaging in avoidance behaviors is a potential issue, resulting in a psychological or emotional disorder (LaGrange et al., 1992; Liebling, 2006). Yuan, Dong, and Melde (2015) applied Bandura's self-efficacy theory to evaluate a person's self-efficacy to assess the relationship between avoidance, threatening, or violent situations, fear of crime, and any significant impact. The researchers argued that even Bandura (1977) expressed that avoidance behaviors and fear of crime were linked to aversive experiences.

To determine if a relationship existed, Yuan, Dong, and Melde (2015) surveyed a total of 8,782 individuals living in the Chicago area. The residents were surveyed that assessed for fear of violence and street efficacy. The study's dependent variable was fear of violence, and the independent variable was street efficacy. Using a multilevel ordinal logistic regression analysis model to analyze the data, the researchers noted a negative relationship between fear of violence and street efficacy. The study's findings indicate that a person's level of fear of crime, low or high, was tied to his self-efficacy or street efficacy in thwarting or deterring a threatening situation. Thus, lower self-efficacy led to a greater sense of fear of crime.

Conversely, high self-efficacy or the more capable a person felt of avoiding threatening situations or remaining safe, the less fear of crime they exhibit. As previously noted, a person's self-efficacy beliefs regarding managing a threatening situation are critical. Yuan, Dong, and Melde's (2015) study provides clear evidence of the theoretical importance and practical

implication of applying Bandura's self-efficacy theory with the theoretical analysis of fear of crime.

A study by Liebling (2006) assessed fear of crime, perceived risk of crime, and self-efficacy of thirty adult women. The researcher evaluated the women, pre and post-intervention, using six different scales: Fear of Crime Scale (FCS), Perceived Risk of Crime Scale (PRCS), Behavioral Avoidance Scale (BAS), Self-Defense Self-Efficacy Scale (SDSES), and a Beck Anxiety Inventory (BAI). By assessing the women on the various scales, Liebling aimed to evaluate the effects of raising perceived self-efficacy using a self-defense intervention led to a reported reduction in fear of crime, perception of risk, avoidance behaviors, and anxiety. A split-plot ANOVA and paired samples t-test were used to assess the survey data.

The study's findings noted that as a participant's self-efficacy was raised through a self-defense mastery experience, she experienced a statistically significant reduction in fear of crime and risk perception. The study by Liebling (2006) highlights how self-efficacy beliefs are linked to a person's perceived ability to cope with a threatening situation successfully. Conversely, the researcher found no change in the participant's avoidance behaviors or anxiety correlating with increased self-efficacy. The researcher concluded that a healthy amount of anxiety and avoidance behaviors were necessary for employing safety self-protection strategies (Hale, 1996; Liebling, 2006). Increasing the participant's self-efficacy allows them to appropriately manage their anxiety and behaviors. In doing so, the person can effectively cope with their fear of crime and employ self-protection strategies more successfully.

The findings by Yuan, Dong, and Melde (2017) and Liebling (2006) support applying a social cognitive perspective to addressing fear of crime. The studies further support that the higher a person's self-efficacy regarding their ability to manage the fear of crime, the less likely

they are to exhibit fear of crime (Yuan et al., 2017). Raising a person's perceived self-efficacy then has a countering effect on a person's fear of crime and becomes an effective change agent (Liebling, 2006; Yuan et al., 2017).

The research supports applying a social cognitive perspective to fear of crime, incorporating it into the literature, and using an SC perspective to promote positive behavioral change. Professional counselors, counselors-in-training, sports, medical professionals, and other professionals working with older adults often seek competent, evidence-based methods to meet this population's unique needs. Some methods used to address fear of crime in this population age group are psychoeducation group counseling or self-defense training. The following section discusses the literature on psychoeducation group counseling and self-defense training, applied through the lens of SCT, to counter fear of crime.

Two Treatment Modalities: Used in Raising SE to Counter Fear of Crime

Numerous studies have assessed the relationship between indirect and direct fear of crime (Kury & Ferdinand, 1998; Liebling, 2006; Mesch, 2000; Skogan, 1987; Smith & Hill, 1991; Stiles et al., 2003). Knowing how to address fear of crime can be challenging for professionals, regardless of the field. The difficulty is that fear of crime is linked to an individual's perception of crime. Conversely, a person's perception may not match reality, compromising their ability to resolve their fear in a healthy manner. Thus, a person's perception of crime can result in experiencing a heightened sense of fear. Exploring treatment methods that effectively address the psychological and emotional effects of fear of crime is crucial.

Psychoeducation Group Counseling

Several counseling theories (i.e., Cognitive-Behavioral Theory, Humanistic Theory) indicate a person's belief system has a mitigating effect on a person's self-efficacy (Liebling,

2006). A person has negative feelings about their efficacy and abilities will ultimately affect their coping behavior (Liebling, 2006). Counseling theorists (e.g., Cognitive theorists, Dialectical behavior theorists, Cognitive-behavioral theorists) further support the link between perceived self-efficacy and the ability to cope with a threatening situation (e.g., physical attack, assault, sexual assault) (Liebling, 2006). A person's low self-efficacy and heightened fear of crime could indirectly impact their inability to cope with a threatening situation. Therefore, the lack of self-efficacy can contribute to an increase in fear of crime. One of the methods used to reframe a person's thoughts and feelings to better manage their fear of crime is psychoeducation group counseling.

Psychoeducation group counseling is a "group therapy approach that educates group members on a specific topic relating to significant life events (Brown, 2011; Tepper, 2019, p. 11). Psychoeducation group counseling can aid and support a person through traumatic and stressful life events. Such life events include death, divorce, childhood trauma, or other traumatic events (e.g., natural disasters, crime-related events, sexual assault, rape) (Brown, 2011**;** American Counseling Association, 2019; Tepper, 2019; Theraplatform.com, 2019**).** Those engaged in the group often share a similar concern or presenting problem (e.g., survivors of a crime, fear of crime, divorcees) for which they have sought treatment (Brown, 2011; Tepper, 2019, p. 10). There are several benefits of psychoeducation group counseling for survivors of a crime or those fearful of crime that afford the benefactor more than individual counseling.

Benefits of Psychoeducation Group Counseling

There is sufficient research indicating that survivors of a crime prefer counseling over treatment options (i.e., medication) (Ellison, 2014; Leigh, 2013; Roy-Bryne et al., 2003). Participation in counseling, individual and group, helps survivors of a crime understand and

change how the traumatic events experienced are processed internally (Clark and Davis-Gage, 2010; Sartor, 2016). Respectively, a survivor's engagement in some form of counseling can help a person reframe thoughts and feelings linked to the traumatic event (Moller & Rice, 2006).

Applying a group counseling approach to assist survivors of a crime can be just as beneficial. A group counseling setting can reduce the individual's psychological and physiological response to the traumatic experience (Muller & Barash-Kishon, 1998). Group counseling also allows the individual to understand the effects of past trauma on current issues (Muller & Barash-Kishon, 1998; Etain et al., 2018; Gormisch, 2019). The setting gives a survivor a sense of community and support that would have otherwise been missed in individual counseling (Bains et al., 2014; Etain et al., 2018; Gormisch, 2019; Greve, 1998). The structure of group counseling allows the survivor to name, express, verbalize, and modulate feelings with others who have experienced similar (Danieli, 1985; Etain et al., 2018; Gormisch, 2019; Muller & Barash-Kishon, 1998). The community aspect of group counseling can be beneficial in reducing a survivor's feelings of isolation or loneliness (Etain et al., 2018; Greve, 1998; Gormisch, 2019).

Combining the group counseling with a psychoeducation piece further supports an individual on the road to recovery. A psychoeducation approach educates the person about the trauma, illness, or issue and provides a cognitive framework for their experience (Etain et al., 2018; Gormisch, 2019; Phoenix, 2007). Psychoeducation can help reduce adverse responses and increase understanding of stress responses, coping strategies, and symptoms, giving the individual a sense of control (Etain et al., 2018; Gormisch, 2019; Phoenix, 2007). Psychoeducation incorporated with group counseling can provide support by helping the individual recognize that the level of distress and symptoms associated with trauma is normal

(Leclerc et al., 2017; Phoenix, 2007). Etain et al. (2018) studied the real-world effectiveness of group psychoeducation on patient outcomes to determine the benefits of this counseling approach. Based on the findings of previous studies on the efficacy of psychoeducation group counseling, it was identified as a first-line treatment approach for individuals dealing with symptoms of bipolar disorder. However, the researchers note a lack of research gauging the real-world effectiveness of group psychoeducation.

The researchers tested effectiveness by offering a 20-hour group psychoeducation program to individuals diagnosed with bipolar disorder. Etain et al. (2018) recruited 103 participants, predominately female (56%), with a mean age of 42 years, and diagnosed with Type 1 Bipolar Disorder (75%). The study had participants complete 10-sessions of group psychoeducation, 120-minutes each, over three months. The group psychoeducation material focused on various topics, from symptom management to medication management, and included between-session exercises and homework assignments. Participants were assessed before engaging in the psychoeducation program on baseline measures (e.g., socio-demographics and prior history of illness). Participants were evaluated pre and post-intervention, assessing them on various variables. The variables evaluated included: symptom ratings (e.g., on depressive symptoms, manic symptoms, anxiety state, and anxiety trait), attrition rate, key outcomes (e.g., pre and post-psychoeducation self-esteem and social functioning), and putative mediators of the program's effectiveness (e.g., changes in medication adherence, increased knowledge of bipolar disorder, and perception of cognitive and emotional representations of illness.

The study results by Etain et al. (2018) found that participants reported statistically significant improvements in one of the key outcome measures, social functioning, and all of the putative mediators (e.g., knowledge of bipolar disorder, illness perception, and medication

adherence). While there was no significant change noted in the participant's self-esteem or medication adherence. Researchers have emphasized that the psychoeducation group as a treatment approach was sufficient in increasing the individual's knowledge and perception of their illness and symptoms. The study results also supported that engaging in a psychoeducation group was indicative of better functioning socially by increasing engagement and satisfaction. The researchers noted a benefit of attendance remaining high, with less than 12% of the participants dropping out or missing two or more sessions. Initially, 156 participants were signed up to join the study, but the final number of 103 was reached due to drop-out or failure to complete post-study assessments. The researcher concluded that psychoeducation group counseling was a real-world treatment approach with beneficial outcomes. Other researchers have validated the findings of Etain et al. (2018) (e.g., Gormisch, 2019; Greve, 1998; Kluft et al., 2000), recognizing the use of psychoeducation group counseling as an ancillary approach to treating survivors of crime. Another benefit of group psychoeducation is the empowering effect on survivors in recovery.

Psychoeducation Group Counseling Addressing Implicit Fear

Researchers note fear of crime and risk perception is often linked to implicit associations (Erickson et al., 2022; Reinecke et al., 2013; Wong et al., 2014). Implicit associations (i.e., regarding race, ethnicity, and social stereotypes) are memory constructs a person develops over time that influences their actions and behaviors (Wong et al., 2014). Studies examining the effect of implicit association note that heightened emotions like social anxiety due to a perceived threat (i.e., fear of crime) can lead to dysfunctional information processing (Wong et al., 2014). Thus negative implicit associations can result in more significant attentional bias regarding various threats, increasing anxiety, and depression (Wong et al., 2014). For older adults, this is

particularly concerning since increased anxiety and depression can lead to greater feelings of fear and self-imposed restrictive or avoidant behavior (May et al., 2009; Ozer & Bandura, 1990; Ranzijin et al., 2008; Reinecke et al., 2013; Weitlauf et al., 2000; Wong et al., 2014). Various therapy approaches (i.e., individual counseling, psychoeducation counseling, or group counseling) can be used to address unconscious, negative emotions (i.e., fear, worry, anxiety) having an adverse effect (Reinecke et al., 2013; Wong et al., 2014).

Counseling implicit emotional states. One study by Reinecke et al. (2013) examined the effects of counseling on implicit fear associations and affect, like fear, which led to heightened anxiety levels. The study evaluated 23 patients receiving counseling for Generalized Anxiety Disorder (GAD) and compared the results to 25 healthy individuals (i.e., control). The study participants were in their mid-forties (GAD group: M = 43.4, SD = 12.7; Control group: M = 45.8, SD = 13.6) and primarily female (70% GAD group; 72% Control group). Participants were presented with sixteen positive images (i.e., babies, flowers, landscapes, animals) and sixteen negative fear-related images (i.e., accidents, attacks, war, threatening situations). The images were meant to elicit an implicit emotional state, whether negative or positive. Participants were asked to engage in two valence practice blocks and categorize images as pleasant or unpleasant. Additionally, participants were asked to associate images with positive or negative words. Participants were also given a color practice block (i.e., 20-trials) and asked to categorize images as either red or blue. During five experimental blocks (i.e., 48-trials each), participants were asked again to categorize images as either negative or positive and red or blue.

The study results revealed that GAD patients receiving counseling improved their implicit evaluation of worry-related images and words. Additionally, GAD patients were shown to reduce their implicit fear association, comparable to healthy patients. The researchers

ascertained that biased implicit associations played a role in maintaining anxiety and even depressive disorders. However, if addressed effectively, such associations were not enduring or a vulnerability factor for GAD. The study results further showed that the stronger the cognitive bias toward the implicit association (i.e., a heightened fear of crime) could influence one's treatment response. Therefore, the researchers suggested a proactive approach to counter cognitive bias by offering additional treatment approaches (i.e., additional interventions, medication, and psychoeducation). Presently there is little to no research examining the effects of group counseling on older adults' implicit associations. However, the present study recognizes implicit or unconscious fear plays a role in fear of crime and perceived risk among older adults. Hence, the benefits of counseling interventions like psychoeducation group counseling can be crucial to addressing an older adult's implicit fear-related associations and affect.

Psychoeducation Group Counseling Empowering Survivors

The power of a therapeutic community can be beneficial in helping individuals sustain a healthy path towards recovery and mobilize resources. Engaging in psychoeducational group counseling can be an empowering experience for survivors or those fearful of crime. Lukens, O'Neill, Thorning, Waterman-Cocotte, Gubiseh-Ayala, Abu-Ras, Batista, and Chen (2004) examined the usefulness of psychoeducation group counseling in the treatment of September 11th, 2001 survivors. The researchers engaged survivors in a brief integrative psychoeducation group counseling intervention. The aim was to determine if a brief group mode of integrated psychoeducation lessened the effects of community trauma.

After September 11, 2001, the researchers were invited to facilitate informational community group meetings to address the trauma experienced by the survivors of that historical event. The researchers state that a true experimental study was not conceptualized due to the

urgency of the crisis response and the impromptu nature of the interventions. The intervention was called HOPE-NY and had been developed specifically in response to the 9/11 crisis. HOPE-NY program was offered weeks after September 11th at six different community locations within New York City. Participants ranged from teachers and parents to service workers and clergy experiencing primary or secondary trauma. The brief integrative psychoeducation group intervention consisted of 4-sessions, occurring weekly or bi-weekly, as scheduled. Depending on the need, each group consisted of at least six to twelve individuals. Individuals were grouped based on their age, gender, primary language, family dynamics, type of trauma, and severity of trauma.

Before engaging in the intervention, participants were invited to an initial individual meeting to provide psychoeducational and cultural assessments. The participant's willingness, need, and readiness to engage in group intervention was also assessed during these one-on-one meetings. The goal of providing the initial meeting was to lessen the feeling of vulnerability among participants and reduce the potential for re-traumatization. Upon completing the fourth and final group session, participants engaged in a transition meeting where clinical status and need for additional interventions or referrals were assessed. The transitional meeting aimed to ensure continuity of care by gauging the lack of ongoing professional support or other formal services.

The psychoeducation HOPE-NY curriculum, provided in the community group counseling sessions, was divided into four major topics. Those topics were (1.) care for self, family, and community; (2.) grief and bereavement; (3.) the ongoing effects of stress and trauma; and (4.) future planning and strength building. Participants were also given information on traumatic responses (e.g., normal versus extreme stress responses), how to talk to children and

adolescents, and how to reach out to individuals who experienced significant loss. Participants were encouraged to process together with the information discussed during the group sessions, identify healthy coping strategies, and address responses to trauma. The feedback and knowledge gained from the interventions and a post-hoc evaluation led the researchers to conclude that the brief integrative program significantly affected participants.

On receiving feedback and conducting the post-hoc evaluation, the researchers noted that the HOPE-NY psychoeducation group program had a softening effect on participants' reporting of secondary trauma. Participants also reported improved interpersonal relationships from engaging in the community and the workplace program. Other reported benefits were increased knowledge about trauma's impact and various trauma-related stress reactions. Participants stated the program helped them understand healthy coping strategies, self-care, problem-solving, and how to care for family and their community. Group bonding was also beneficial by increasing the participant's overall social support. Participants, who had lost a family member on September 11, reported the program helped them improve their self-care, engage in active grieving, and manage post-traumatic stress. Other benefits of the intervention noted were the participant's recognition of the value of mental health services and the importance of being proactive in their self-care. Participants also reported an increased resiliency and hope from engaging in the group sessions and were more open to engaging in ongoing mental health services. The researchers concluded that a brief integrative group intervention was vital to empowering individuals dealing with primary or secondary trauma.

A second study noting the empowering nature of psychoeducation group counseling was conducted by two researchers, Moller and Rice (2006). The study by Moller and Rice (2006) aimed to evaluate the effectiveness of a group psychoeducation program on survivors dealing

with the aftermath of trauma and abuse. The group psychoeducation program, BE SMART (Become Empowered: Symptom Management for Abuse and Recovery from Trauma), was a 12-week course designed to teach survivors wellness coping principles as part of their recovery. The course was derived from the Murphy-Moller Wellness Model, The Three R's program: A Wellness Approach to Rehabilitation of Neurobiological Disorders, and Trauma Reframing Therapy (Moller & Rice, 2006; Murphy and Moller, 1996; Rice & Moller, 2003).

The BE SMART program focused on four wellness domains: health, attitudes and behavior, environment and interpersonal relationships, and spirituality. Each domain was addressed across the 12-sessions of the program. Session topics ranged from the aftermaths of abuse/trauma/neglect and developing a sense of self to coping with anxiety and successful management of health-related triggers. In a follow-up study, the researchers described the results of the psychoeducation program.

To determine if BE SMART was effective in treating trauma, Rice and Moller (2006) conducted a quantitative study involving a total of 55 participants. The researchers recruited 44 women (81.5%) and ten men (18.5%) with a mean age of 44.6 years and a primary diagnosis of posttraumatic stress disorder (45%), followed by bipolar disorder (24%). The participants engaged in the 12-session BE SMART group psychoeducation program once a week for 12-weeks. Each session was 3-hours long, and the program was provided consecutively from the spring of 2001 to the spring of 2004. Participants were assessed at weeks two and week 12 for the four wellness domains (e.g., health, attitudes and behavior, environment and interpersonal relationships, and spirituality) using the Wellness Assessment Tool or WAT. The WAT is a self-evaluation instrument that consists of 10-questions, rated on a 4-point Likert scale for each of the four wellness domains.

The researchers noted several crucial findings after comparing the data from week 2 to week 12. A paired sample correlation analysis showed that all four wellness domains (e.g., health, attitudes and behavior, environment and interpersonal relationships, and spirituality) correlated with a total wellness score of .75. Interpersonal relationships and environment scores reported the strongest correlation of the total wellness component scores of the four domains. The correlation analysis findings indicated that successful recovery from trauma and abuse was linked to a person's safety in relationships and one's environment. A paired samples t-test showed statistically significant differences for all four domains, from week 2 to week 12, at the $p = .05$ level. A paired *t*-test demonstrated that the participants improved across all four wellness domains, from week 2 to week 12, from engaging in the group psychoeducation program. Even though there was no significant difference in the scores between men and women, women scored higher than men across all four domains.

Similarly, no significant difference was noted for younger versus older, except at week twelve. The researchers noted that older adults scored higher in all domains, except attitudes/behavior. However, these differences were found not to be statistically significant. Participants stated that engaging in the BE SMART group psychoeducation program resulted in them feeling more in control of their overall health and wellness. Participants further reported the program improved their overall health, helped reduce interpersonal conflict, improved interpersonal relationships and feelings of environmental control, and gave them a stronger sense of spirituality. The researchers concluded that group psychoeducation programs, like BE SMART, could be beneficial as a therapeutic approach to facilitating recovery for individuals dealing with traumatic experiences. The researchers considered the psychoeducation model valuable in addressing and treating survivors and empowering them across all four domains. The

findings of previous research support using a group psychoeducation program to empower others. The present study evaluates the benefits of an augmented group psychoeducation program on older adults by raising their perceived self-efficacy. The following is a discussion on group psychoeducation to increase perceived self-efficacy.

Remote Online Delivery of Psychoeducation Group Counseling

Research on Remote Online Delivery of Counseling

Remote online delivery of counseling-related services has been around since the 1960s (Raunch, 2017). The use of the telephone to provide mental health support in the ’60s allowed the therapist to reach patients beyond their office (Raunch, 2017). The introduction of the internet in the mid-1980s produced a new approach to providing mental health services (Raunch, 2017). The term tele-counseling or telehealth is commonplace today and, with the onset of COVID-19, became an ideal way of continuing to provide mental health support (Mishna et al., 2020; Raunch, 2017).

Suranata et al. (2021) evaluated the effectiveness of an online psychoeducation intervention seeking to counter anxiety related to COVID-19. A total of 129 participants were randomly assigned to one of three groups: experimental group 1, experimental group 2, and a wait-list control group. Experimental group 1 was provided online self-help mindfulness exercises, while experimental group 2 engaged in online self-help relaxation exercises. The wait-list control group received no intervention. The study results noted that the online self-help psychoeducation intervention effectively reduced anxiety in both the experimental 1 group and experimental 2 group. Comparing the two groups indicated that online delivery of mindfulness psychoeducation was more effective in reducing anxiety than the delivery of relaxation exercises. In contrast, the wait-list control group experienced no change in anxiety levels. The

researchers concluded that the remote online delivery of a psychoeducation intervention had practical implications for treating anxiety disorders.

A study by Kublas and Ozabaci (2021) evaluated the effects of a psychology-based online group counseling program on the psychological well-being, compassion, and hope levels of women having children with intellectual disabilities. The participants consisted of 39-women who were mothers of children with moderate to severe intellectual disabilities. Once assessed, the mothers were assigned to one of three groups: an experimental group (n = 12), a placebo group (n = 11), and a control group (n = 12). The experimental group engaged in 10-online sessions of a Positive Psychology-Based Online Group Counseling Program (PPBOGCP). Whereas the placebo group engaged in ten sessions of addictions-based (i.e., alcohol, tobacco, technology, substance, drugs, shopping) guidance, and the control group received no counseling. Each group was assessed using the following: a Psychological Well-Being (PBW) scale, a Self-Compassion (SC) scale, and the Dispositional Hope (DH) scale at Time 1 (pre-test), Time 2 (post-test), and Time 3 (follow-up test).

The study results showed that mothers participating in the PPBOGC program increased significantly in psychological well-being, self-compassion, and hope levels compared to the placebo and control groups. The researchers concluded that providing group counseling positively affected mothers with children with intellectual disabilities and that the remote online approach was therapeutically meaningful (Kublas & Ozabaci, 2021). The studies by Kublas and Ozabaci (2021) and Suranata et al. (2021) highlight the remote online delivery of psychoeducation and group counseling. Research has noted the benefits of remote online delivery of therapeutic interventions, which will not be discussed.

Benefits of Remote Online Delivery of Counseling

Research has also noted several benefits of using a remote online approach to therapeutic interventions (Miller & McDonald, 2020; Novotney, 2017; Powell, 2006; Smolkin, 2016). The American Psychological Association denotes te the flexible nature of tele-counseling makes offering therapy more accessible and convenient (Novotney, 2017; Powell, 2006; Smolkin, 2016). Patients can schedule appointments quickly and confidently while meeting with a therapist from the comfort of their homes (Novotney, 2017; Powell, 2006; Smolkin, 2016). Additionally, therapists can reach more individuals and offer counseling services to any with access to technology) (Novotney, 2017; Powell, 2006; Smolkin, 2016).

The remote online delivery of various health-related services became a notable trend during COVID-19. As the U.S. quickly went into lockdown and many sheltered-in-place, the pandemic created a disruption in healthcare-related services (Miller & McDonald, 2020). The remote online delivery of therapy practices provides a collective shift to increasing access to mental health services during a critical time (Miller & McDonald, 2020). Some benefits of offering services during the pandemic were creating a digital safe space for individuals to connect and promoting resilience (Miller & McDonald, 2020). The remote online delivery of therapeutic and healthcare-related services was also essential for older adults during COVID-19.

A study by van Dijk et al. (2020) examined the benefits of an online Schema-Therapy-based day-treatment program for older adults. Four participants (n = 3, female) between the ages of 64 to 70 participated in the online program. The program was a 20-week online group therapy program offering behavioral activation, schema therapy, art therapy, and group discussion. Additionally, the program provided verbal and non-verbal therapies, with non-verbal therapies were shortened to reduce screen time. Participants were assessed every four weeks using the

SCID-5-PD, Schema Model Inventory (SMI), and Young Schema Questionnaire (YSQL2). The SCID-5-PD evaluated the presence of personality disorders, while the SMI examined fourteen schema modes on circumstances and interaction using the Schema Mode Inventory (SMI). The Young Schema Questionnaire (YSQL2) examined sixteen schemas related to the person's youth.

The study results indicated that participants with a personality disorder reported feeling rejected by healthcare due to COVID-19 restrictions. The schema-therapy program's remote online approach reduced prejudices about online group therapy and enhanced interaction (van Dijk et al., 2020). The online process was also noted to be easier for the older adult participants, with many having the technological literacy to participate. The researchers concluded that providing schema therapy allowed patients to connect, counter feelings of rejection, and disconnect when triggered. Now, a discussion on applying Social Cognitive Therapy (SCT) to raise perceived self-efficacy through psychoeducation group counseling.

Applying SCT: Psychoeducation Group Counseling

Effect of Psychoeducation Group on SE

When it comes to academic research within the field of rehabilitation or clinical counseling, multiple studies have been conducted on the impact of counseling on self-efficacy (Heffner et al., 2013; Karimlou et al., 2017; Rouzbeh et al., 2018). Most of these studies primarily examine the application and use of individual counseling approaches (e.g., Cognitive-Behavioral Therapy, Dialectical Therapy, Gestalt Therapy) (Heffner et al., 2013; Karimlou et al., 2017; Rouzbeh et al., 2018; Saadati & Lashani, 2013). Very little research has been conducted examining the effects of psychoeducation group counseling on self-efficacy. The following studies represent the literature examining the application of psychoeducation group counseling to

increase a person's self-efficacy. By discussing the subsequent studies, the aim is to understand how psychoeducation group counseling might influence self-efficacy.

In a study by Hubbard, McEvoy, Smith, and Kane (2016), the researchers examined the effectiveness of a brief group psychoeducation program on caregivers of individuals with bipolar disorder. The study aimed to determine if engaging in a short group psychoeducation program increased participants' knowledge and self-efficacy in understanding bipolar disorder. The researchers further examined if engagement in the program reduces negative emotional symptoms (e.g., depression, anxiety, and stress) felt by caregivers. The researchers also looked to see if any gains or positive outcomes experienced would be maintained for one month at follow-up. The design of the group psychoeducation program consisted of two 150-minute psychoeducation sessions, occurring one week apart, for two weeks. The psychoeducation intervention was adapted from a health service's program called *A Guide for Caregivers of People with Bipolar Disorder* (Berk et al., 2012; Hubbard et al., 2016). The psychoeducation material addressed symptoms of mania, hypomania, and depression. The content also highlighted how to communicate about warning signs, recognize symptoms of stress & depression, and maintain or rebuild relationships. Each session covered seven topics, for fourteen issues covered over the two sessions. The length of the sessions was not specified, and the sessions were provided by a masters-level clinical psychologist and registered psychologist.

A total of 32 participants, 13 men and 19 females, with a mean age of 48.12 years, were randomized to one of two conditions. Condition 1 was the immediate intervention (n = 18), and condition 2 was the waitlist condition (n = 14). Participants randomized to immediate intervention or condition one were measured at three different time points. Those time points for condition 1 were as follows: Time 1 (one week before the first session), Time 2 (immediately

after the second session), and Time 3 (one month after the second session) (Hubbard et al., 2016). While participants assigned to condition two were measured at four different time points: At allocation to the waitlist (Time 1), two weeks after Time 1 (Time 2), one month after Time 2 (Time 3), and right after completing the second session of the brief group psychoeducation (Time 4).

The study design included four measures to assess the caregiver's self-efficacy, knowledge, emotional affect, and feeling of the burden from caring for someone with bipolar disorder. The instrument used to measure self-efficacy was the Bipolar Disorder Self-Efficacy Scale. The SE scale is an 11-item instrument, rated on an 11-point Likert scale, used to assess changes in the caregiver's confidence with various caregiving activities. The researchers also used the Depression, Anxiety, and Stress Scale (DASS-21) to determine the caregiver's emotional affect. The DASS-21 is a 21-item instrument used to assess depression, anxiety, and stress in adults, using a 4-point Likert scale. The caregiver's knowledge of bipolar disorder was measured using an 8-item instrument, rated on a 4-point Likert scale, created for the study. Lastly, the caregiver's sense of burden was assessed using the Burden Assessment Scale (BAS). The BAS is a 19-item instrument rated on a 4-point Likert scale. It measures the "objective and subjective consequences" of providing care to individuals with bipolar disorder or severe mental illness.

Once the information from all time points had been collected, a Generalized Linear Mixed Model was used to analyze the data. The researchers also examined group-by-time interactions and used Least Significance Difference (LSD) to analyze significant group-by-time interactions. The researchers also used LSD to evaluate the waitlist's pre- to post-intervention outcomes. The purpose of using LSD was to determine if the waitlist group had duplicated the

results reported by the intervention group. Upon evaluation of the data, the researcher noted several findings. First, no significant difference existed pre-treatment between the intervention and waitlist groups.

Even though there is little to no research on the effects of psychoeducation group counseling on self-efficacy, the findings by Hubbard et al. (2016) indicated such methods could be used to raise a person's perceived self-efficacy. To further examine psychoeducation group counseling on self-efficacy, the next step is to explore increasing feelings of safety to counter fear of crime. A pre- to post-analysis revealed that the intervention group showed statistically significant improvements in BAS, knowledge, and bipolar disorder self-efficacy compared to the waitlist group. The findings indicated that engagement in brief group psychoeducation reduced caregiver burden, increased understanding of the bipolar disorder, and increased bipolar self-efficacy. However, there was no significant change over time regarding depression, anxiety, and stress. The researchers also found that the intervention group's results (e.g., reduction in burden, increased knowledge, and increased bipolar disorder self-efficacy) were replicated in the waitlist group. The researchers concluded that brief engagement in group psychoeducation effectively raised self-efficacy and knowledge and reduced feelings of burden. The only non-significant change was reducing negative emotions (e.g., depression, anxiety, and stress) associated with caring for someone with a mental illness. Hubbard et al. (2016) concluded that no significant change occurred because the group psychoeducation did not target these emotional symptoms. Based on the findings, the researchers maintain that the study provides evidence supporting group psychoeducation as an intervention to raise self-efficacy and address other outcomes (e.g., increase knowledge, reduce burden).

A second study by Faysali, Zariah, and Dashtebozorgi (2017) evaluated the impact of a group psychoeducation program on a patient's self-efficacy in dealing with an intestinal stoma. An intestinal stoma is a surgical opening in the abdominal wall's intestinal system or urinary tract. The purpose of the stoma is to allow for the discharge of bowel contents which often results in a colostomy bag. The need for a surgical stoma is linked to severe medical issues, such as colon cancer, trauma, diverticulitis, or inflammatory bowel disease. The study by Faysali et al. (2017) aimed to investigate the effects of group psychoeducation on the self-efficacy of individuals with an intestinal stoma. The goal was to provide individuals with a stoma of the necessary information to increase self-efficacy associated with self-care.

The study was quasi-experimental, with a pretest-posttest design. Twenty-four individuals recruited through a government or private hospital, with a mean age of 47.9 years, participated in the study. Of those participants, 16.6% were females, and 12.5% were males who had dealt with a surgical stoma for at least one month. The psychoeducation group counseling consisted of six 1-hour training sessions, three of the sessions occurring daily for three consecutive days, and the remaining three sessions occurring once a week for three weeks. The topics during the psychoeducation groups included discussions on coping with a stoma and how to overcome fear of being in the community to increase self-efficacy and self-confidence related to stoma and self-care.

The researchers used two different instruments to measure the participants. One of the instruments was a basic demographic questionnaire consisting of 14-questions. The second was the Scherrer General Self-Efficacy questionnaire, which included 17-questions rated on a 4-point Likert scale. Participants were assessed at three different times: Time 1 (before the start of the first session), Time 2 (at the end of the final session), and Time 3 (three weeks after the last

session). Using a repeated measure of analysis of variance, the researchers noted statistical significance at the $p < 0.001$ level, in the participant's self-efficacy, from pre (59.37 ± 2.52) to post (64.25 ± 1.97) the psychoeducation group sessions. Indicating participating in the six sessions of psychoeducation group counseling led to higher self-efficacy. The study results also revealed that the participant's self-efficacy continued to improve (68.50 ± 1.87) at the $p < 0.001$ level three weeks after the last psychoeducation group counseling sessions had ended. Lastly, the researchers noted that the self-efficacy scores of the men were found to be more statistically significant than those of the women. Faysali et al. (2017) concluded that the study results supported using psychoeducation group counseling to increase self-efficacy, particularly for the population studied. Even though there is little to no research on the effects of psychoeducation groups on self-efficacy, the studies mentioned provide strong evidence for using such an approach.

Similarly, little to no research demonstrates the use of raising self-efficacy through a psychoeducation group counseling approach to counter fear of crime. There is sufficient literature evaluating the benefits of psychoeducation group counseling with addressing mental health and emotional responses (i.e., depression, worry, anxiety) associated with fear of crime. The final discussion on psychoeducation group counseling explores this aspect of the literature. These studies highlight how psychoeducation group counseling can be applied to address emotions (i.e., depression, worry, anxiety) experienced by older adults.

Psychoeducation Group Counseling & Treating Fear of Crime

Treating Fear of Crime among Older Adults

Presently, there is no considerable research on psychoeducation group counseling to address the fear of crime in older adults. However, there is sufficient research examining the

emotional impact of fear of crime (Greve, 1998; Beaulieu et al., 2002; Beaulieu et al., 2004; Liebling, 2006; Collins & Marrone, 2015; Tan & Haining, 2016). One of the adverse effects of fear of crime, frequently discussed within the literature, is avoidance behaviors (Liebling, 2006; May et al., 2009; Rader et al., 2007; Rader, 2010). Avoidance or constrained behaviors are precautionary measures to manage potential threats of victimization or fear of crime (Lane et al., 2014; Liebling, 2006; Rader, 2010). Such behaviors may result in older adults refusing to leave their homes, go out in the community, socialize with others, or refrain from engaging in meaningful activities (Lane et al., 2014; Liebling, 2006; Rader, 2010).

As a response to fear of crime, avoidance behaviors can have an emotional and physical toll on an individual (Liebling, 2006; Stubbs et al., 2014). Some emotional and psychological effects of avoidance behaviors are depression and anxiety (Dulin and Passmore, 2010; Liebling, 2006; Stubbs et al., 2014; Tan & Haining, 2016; Victims of Crime, 2019).). Therefore, fear of crime is not a monolithic concept but one that comprises many different aspects, and *fear* is a complex emotion. "Emotions…involve feelings and experience, they involve physiology and behavior, and they involve cognitions and conceptualizations (Ortony et al., 1988; p. 1; Greve, 1998)."

Addressing Depression & Anxiety in Older Adults

Presently, there is little research on the impact of psychoeducation group counseling on fear of crime. There is sufficient research on the beneficial effects of psychoeducation group counseling on depression and anxiety (Chouinard et al., 2019; Naismith et al., 2011; Wong et al., 2016; Wuthrich and Rapee, 2013). The frequency of depression and anxiety among the older adult population is high. Researchers maintain that 47% of this age group meet the criteria for a depressive or anxiety disorder (Beekman et al., 2000; Withrich & Rapee, 2013). If left untreated,

depression and anxiety can increase the risk of cognitive decline and dementia, improve chronic health issues, and increase suicide rates (Cohen et al., 2009; DeLuca et al., 2005; Wuthrich and Rapee, 2013). The following is a literature discussion on the effects of psychoeducation group counseling on depression and anxiety in older adults.

In a study by Wuthrich and Rapee (2013), the effectiveness of group psychoeducation cognitive-behavioral therapy (CBT) on comorbid anxiety and depression in older adults was assessed. The study aimed to conduct a randomized controlled trial to determine the group psychoeducation CBT efficacy. The primary outcome was any changes in severity for anxiety and depression for those engaging in the intervention (e.g., group psychoeducation CBT). A total of 62 participants (22 = male, 40 = female) with a mean age of 67.44 years were recruited for the study. Upon recruitment, participants were asked to complete several self-report assessments. The self-report assessments included: the Geriatric Depression Scale (GDS), the Center for Epidemiological Studies-Depression Scale (CES-D), the Geriatric Anxiety Inventory (GAI), the Penn State Worry Questionnaire (PSWQ), and the Short Form-12 version 2 Mental Health Subscale (SF12). The GDS is a 30-item instrument used to assess participants' depression symptoms. The CES-D, a 20-item instrument, was used to evaluate depression over the past week. The researchers used the GAI, a 20-item inventory, to assess anxiety symptoms. At the same time, PSWQ measured the level of worry in elderly patients. Lastly, the SF12 measured the participant's overall mental health status.

The researchers assessed the participant's anxiety and depression through a diagnostic clinical interview. The interview required participants to complete the Anxiety Disorders Interview Schedule for DSM-IV (ADIS) and a semi-structured interview with a graduate-level clinical psychology student. The diagnostic clinical interview results revealed that 89% of the

participants (n = 55) met DSM-IV criteria for anxiety and mood disorder. Participants were also asked to complete a cognitive assessment, the Addenbrooke Cognitive Examination-Revised (ACE-R). The ACE-R was used to assess the participants for dementia across five cognitive domains (e.g., attention/orientation, memory, verbal fluency, language, and visuospatial abilities). Once the ADIS, ACE-R, and pre-treatment assessments had been completed, participants were randomly assigned to one of two treatment groups: CBT or waitlist. Those in the CBT treatment group (n = 27) engaged in the intervention soon after being assigned. In contrast, the waitlist group (n = 35) was offered to engage in the intervention after the treatment group. The intervention (e.g., psychoeducation group CBT program) consisted of 12-sessions occurring once a week, for 2-hours each session, for a total of 12-weeks.

The 12-week sessions occurred in blocks of six to eight participants per session. The topics covered during the 12-sessions ranged from cognitive restructuring and common barriers to sleep strategies and scheduling activities. The information provided was derived from a program called *Ageing Wisely* and was led by the lead primary investigator and two graduate students. Cognitive restructuring was considered a core component of the program, which offered information on evaluating situations and thoughts and utilizing helpful replacement thoughts to restructure one's thoughts and feelings. At the end of the 12-weeks, the treatment group received post-assessments, including all pre-assessments (e.g., self-report assessments), cognitive assessment, and diagnostic assessment. Those in the waitlist group who chose to engage in the intervention received post-assessments upon completion of the final group session. All participants who completed pre- and post-assessments were re-assessed three months after the treatment ended.

Data gained from the pre, post, and follow-up assessments were analyzed using a hierarchical mixed model to evaluate the difference between groups on continuous measures (e.g., pre, post, and follow-up). Researchers used this analysis to examine group (CBT or waitlist) interactions by time (pre, post, and follow-up). The Chi-Squared analysis examined recovery rates pre- to post-intervention. The analysis results revealed no statistical difference at baseline between the two groups regarding the demographic features, pre-assessments, or the ACE-R. The severity of the presenting problem (e.g., anxiety, depression, or both) was higher for the intervention group than the waitlist group at baseline, which was statistically significant. At the same time, diagnostic severity across time (e.g., pre and post) and condition (e.g., CBT versus waitlist) were also statistically significant. The CBT group reported significant improvement due to the treatment compared to the waitlist group. The researchers also noted that the CBT group reported a statistically significant reduction in anxiety and depression compared to the waitlist group. Evaluation of the data at follow-up showed that the CBT group retained the treatment improvements and reduced anxiety and depression. Furthermore, the self-report measures revealed any significant change that had occurred over time was also maintained at follow-up.

The researchers also evaluated the recovery rate or the treatment effect (e.g., psychoeducation group CBT sessions) on the participant's ADIS severity scores. Analysis of the data showed that the treatment condition led to significantly higher recovery rates for a primary problem (e.g., anxiety, depression, or both) than the waitlist condition, primarily upon post-treatment. The analysis also showed that the post-treatment's significant recovery rate was maintained at follow-up. Lastly, the researchers examined reliable change or the extent to which the primary outcome was consistent. The researchers calculated change using the Reliable

Change Index. The calculation results revealed that 74% of the difference experienced by those in the intervention group, from pre to post-treatment, were consistent over time. Any change obtained from the study was also shown to increase for the intervention group by 86% at the three-month follow-up. In contrast, only 23% of the waitlist group showed steady improvements from pre to post-treatment.

The chi-square also confirmed a significant difference between the two groups, from pre to post-treatment, and reliable change. Regarding the efficacy of the CBT program, no statistical significance was found for the program reducing anxiety and depression separately. The CBT program did not differ in efficacy when lowering a primary anxiety disorder versus a primary mood disorder. Overall, Wuthrich and Rapee (2013) concluded that the results supported applying a group psychoeducation CBT program for treating comorbid anxiety and depression in older adults. The study's findings also supported using a psychoeducation group approach to promote improvements in addressing primary mood or anxiety problems long after treatment ended.

A similar study by Bains, Scott, Kellett, and Saxon (2014) evaluated the effectiveness of group psychoeducation cognitive-behavior programs on older adults. The study aims to see if a group psychoeducational approach helps older adults deal with mixed anxiety and depression. For this study, the researchers recruited a total of 34 older adults (n = 28 females, 82%) with a mean age of 74.8 years, who primarily dealt with comorbid anxiety and depression (61%). Additionally, 97% of the participants continued to take medication for anxiety and depression throughout the treatment intervention. The treatment intervention was the group psychoeducation CBT program. The program consisted of 6-sessions, with each session occurring once a week for 2-hours over six weeks. There was a total of 8-groups, with each group consisting of three to six

participants per group. The psychoeducation material was derived from the *Anxiety and Depression Management Group Manual*. The information covered ranged from anxiety and depression to the application of behavioral and cognitive change methods (e.g., activity scheduling or thought challenging).

The following measures were used to assess participants: the Hospital Anxiety and Depression Scale (HADS), the Clinical Outcomes in Routine Evaluation-Outcome Measure (CORE-OM), and the Group Session Rating Scale (GSRS). The HADS is a 14-item instrument rated on a 22-point Likert scale to assess anxiety and depression. A high score on the HADS indicates greater severity of anxiety and depression. The CORE-OM is a 34-item self-report instrument rated on a 5-point Likert scale to measure global psychological distress (e.g., subjective wellbeing, functioning, psychological problems, and risk. A high score on the CORE-OM also indicates more significant psychological distress. The GSRS is a four-item scale used in group therapy, rated on an 11-point Likert scale to assess group interaction or the relationship aspect of the group. The GSRS evaluated the group, examining whether goals or topics were attended to, the approach and methods used by facilitators, and the group's overall perception. Higher scores for the GSRS indicate a positive group therapy alliance.

Participants were measured using the CORE-OM at three different time points: Time 1 (before the group intervention), Time 2 (end of group intervention), and Time 3 (at follow-up or six weeks after the group intervention had ended). The HADS and GSRS were completed at the end of each group session. The clinical staff providing the psychoeducation group also measured the participant's health and social circumstance at Time 1, Time 2, and Time 3. The measure used by staff was the Health of Nation Outcome Scale (HoNOS 65+). The HoNOS 65+ consisted

of 12 single-item scales, rated on a 5-point Likert scale, used to assess the patient's mental and social health. High scores for this instrument are indicative of poorer health.

Once the information for assessment had been collected at all three-time points, the researchers analyzed the data. To investigate the HADS, the researchers examined the normal distribution of the data using a Z score. The Z score was calculated by dividing skewness from the standard error of skewness and kurtosis from the standard error of kurtosis. The CORE-OM results were analyzed using outcome ratios for the eight groups using clinical and reliable change analysis. The researchers considered clinical change had occurred if the participant shifted from a case to a non-case on the CORE-OM. The researchers also used the Reliable Change Index to calculate constant change. Using outcome ratios also allowed the researchers to analyze the data for recovery rate outcomes (i.e., clinical and reliable change), reliable improvement (i.e., positive change), clinical improvement (i.e., case to non-case), reliable deterioration (i.e., negative change), clinical deterioration (i.e., non-case to case), and harm (i.e., non-case to case and reliable deterioration). T-tests were used to analyze any change between the different time points among the groups. Lastly, an analysis of variance (ANOVA) was used to analyze any weekly changes in the participant's anxiety or depression and group alliance.

The results of the data revealed several significant findings. First, the baseline data analysis indicated that 85% of the participants (n = 28) met the CORE-OM criteria for ‘caseness.’ The results showed that these participants scored high on the CORE-OM, indicating high psychological distress. Additionally, no significant difference was found for the eight groups on the HADS (e.g., anxiety and depression), CORE-OM for wellbeing, or HoNOS 65+ (e.g., participants' health). The pre and post-data analysis revealed statistically significant anxiety

reduction and improved well-being. The findings noted no statistical significance of the intervention reducing the participant's symptoms of depression.

The results revealed that the participants engaging in the intervention were maintained from post-intervention to follow-up. Evaluation of data from the staff-rated instrument indicated a small effect size for health and a large effect size for self-reported wellbeing. The results suggest that the staff perceived no changes in health, but more improvement in the participant's well-being, due to the psychoeducation group CBT program. Additionally, no statistical significance was noted for group alliance and the session's effect on weekly rated anxiety (Bains et al., 2014). Bains, Scott, Kellett, and Saxon (2014) concluded that a psychoeducation group CBT approach to treating anxiety and depression in older adults was promising. The research by Bains, Scott, Kellett, and Saxon (2014) and Wuthrich and Rapee (2013) and subsequent findings provide additional support for using a psychoeducation group approach.

Research into the effectiveness of psychoeducation group approaches further notes the benefits of reducing depression and anxiety in adults, particularly older adults (Tursi et al., 2013; Wong et al., 2016). A review of 13 articles on the effectiveness of psychoeducation for individuals with depression revealed that increased knowledge of depression resulted in a better overall prognosis (Tursi et al., 2013). A psychoeducation group approach focused on the family was shown to reduce the family's psychosocial burden (Tursi et al., 2013). Families reported that family members diagnosed with a depressive disorder engaged in psychoeducation group counseling reported significant improvements in expressed emotion and reduced emotional distress and care burden (Tursi et al., 2013). Studies that have compared a psychoeducation group approach to other forms of group therapy (i.e., mindfulness-based therapy, Cognitive-

Behavioral group therapy) have noted several benefits (Chouinard et al., 2019; Wong et al., 2016).

Researchers have noted that a psychoeducation group approach is just as effective as other forms of group therapy in addressing emotional issues (e.g., anxiety, depression, or worry) (Chouinard et al., 2019; Wong et al., 2016). Researchers also note that a psychoeducation group approach significantly affects health-related quality of life, well-being, and perceived stress (Chouinard et al., 2019; Wong et al., 2016). The findings give credence to the benefits of a psychoeducation group approach for the older adult population and support the application of such an approach to addressing older adults' emotional needs. By recognizing the effects of this approach on an older adult's emotional well-being, the present study aims to provide evidence for using this approach to the psychological impact on fear of crime.

Addressing Other Aspects of Fear of Crime

Another consequence of avoidance behaviors is loneliness and isolation from others. Often, loneliness and isolation can lead to increased depression and anxiety. Researchers studying and identifying treatment strategies to counter fear of crime recognize the value of social integration and support (Finley, 1983; Greve, 1998; Hansson & Carpenter, 1986). A standard buy product of fear of crime is for individuals to perceive a lack of support and protection by others or their community (Greve, 1998). The research behind the efficacy of social support as a mitigating influence on dealing with traumatic or threatening life events is extensive (e.g., Cohen and Syme, 1985; Greve, 1998; Lurigio & Resnick, 1990; Sales et al., 1984; Schwarzer & Leppin, 1991; Silverman & Kennedy, 1985; Thoits, 1982; Thoits, 1983; Toseland, 1982).

Studies focused on the older adult population report a decline in social supports or networks over time as they age (Arling, 1987; Greve, 1998; Vaux, 1985). Licensed professionals or professionals seeking to address fear of crime by increasing an older person's social network. Increasing the social network and support of older adults has also been noted to positively affect age and fear of crime (Greve, 1996; Greve, 1998). Thus, the more socially integrated an older adult feels, the less fearful they are of crime (Greve, 1996; Greve, 1998).

Addressing the implicit or perceived risk associated with fear of crime is also vital to meeting the needs of the aging population. Implicit fear associations between crime and perceived risk can influence how an older adult views others (Erickson et al., 2022; Lundberg et al., 2018; Reinecke et al., 2013). Negative implicit associations can also affect how older adults interact in their environment (Erickson et al., 2022; Lundberg et al., 2018; Reinecke et al., 2013; Wong et al., 2014). Research has shown that implicit fear associations can also lead to implicit bias and prejudices, resulting in misidentifying an unsafe situation (Erickson et al., 2022; Lundberg et al., 2018; Reinecke et al., 2013). Whether consciously or unconsciously, misidentifying a situation can compound an older adult’s fear of perceived risk and crime (Erickson et al., 2022; Lundberg et al., 2018; Reinecke et al., 2013). Psychoeducation group counseling is one therapeutic approach that can be used to raise self-efficacy and counter implicit fear of crime and risk perception.

The structure of psychoeducation group counseling also provides older adults with the social support and group connection needed to counter the fear of crime. The present study maintains that an older adults' self-efficacy beliefs can have a reciprocal effect emotionally, mentally, and behaviorally. Increasing the self-efficacy beliefs of this population through psychoeducation group counseling can mitigate the negative emotions, thoughts, and constrained

behaviors associated with fear of crime. Another method found to be effective in increasing a person's perceived self-efficacy and reducing fear of crime is self-defense training.

Self-Defense Training & Treating Fear of Crime

Self-protection strategies are one of the methods individuals use to protect themselves and their families from harm. These strategies are also used to control one's fear of crime. Negative self-protection strategies can include self-isolation (i.e., not leaving one's home) or avoiding leisure activities (e.g., shopping, exercising, or going out with family or friends) (Liebling, 2006; Rosenbaum, 1988; Sanders & Murray, 2018). Positive self-protection factors can involve going to places perceived as safe, buying home-security equipment, buying a firearm, or taking self-defense classes (Liebling, 2006; Rosenbaum, 1988; Sanders & Murray, 2018). While some of these strategies do assist in reducing the person's fear of crime or potential for victimization, not all empower the person to deal with a threatening situation proactively. One method of providing individuals with the necessary coping skills to ward off or protect themselves is self-defense training.

Self-defense training focuses on the learner gaining verbal and physical skills, assertiveness skills, and awareness skills to protect oneself, property, or family from harm (National Coalition against Sexual Assault, 2013; Sanders & Murray, 2018). Another way to view self-defense training is as "preparation to minimize the possibility of becoming a victim of crime through acquiring a small number of simple, yet effective, survival skills (Cummings, 1992; Liebling, 2016). Training in SD often includes safety or self-protection techniques in verbal, physical, and mental resistance techniques to thwart an attacker or a threatening situation (Cummings, 1992; Liebling, 2016).

Self-defense training aims to provide an individual with the appropriate self-protective skills to resist, prevent, survive, or escape a threatening situation or an attack by an assailant (Sanders & Murray, 2018). Moreover, the individual's physical and mental self-protection techniques act as powerful coping strategies for future reference (Liebling, 2006). According to Bandura (1983), a person's self-efficacy is tied to their "judgment of how well they can organize and execute constituent cognitive, social, and behavioral skills in dealing with prospective situations (p. 467)." Therefore, if individuals believe their perceived ability falls short, managing the demanding situation will be difficult. For Bandura (1989a), a person's ability to cope and deal with future problems is tied to their reflective thought on their ability to exercise control over situations affecting their lives. Self-defense training is one method of helping a person regain a sense of control. Offering mastery experiences and modeling procedures are more assured a person can become of their coping capabilities (Bandura, 1989a; Bandura et al., 1985; Liebling, 2006). Although there are more, these are a few of the benefits of engaging in self-defense training.

Engaging in Self-Defense (SD): The Benefits & Reasons

Researchers often ask two common questions when evaluating the effectiveness of SD training. The first is ‘why do individuals take SD classes?' The second is, ‘does learning SD prevent violence or assault?' A researcher that has worked to address both questions is Jocelyn A. Hollander. In a 2010 study, Hollander evaluated why individuals, particularly women, seek out and take self-defense classes. The researcher states that self-defense training can provide many positive benefits, from being a source of empowerment and increasing knowledge about safety to increasing self-confidence and decreasing fear, anxiety, and distress (Brecklin & Ullman, 2005; Hollander, 2010). The researcher maintains that very little research has examined

why women seek self-defense classes and why some do not. To answer her question, Hollander surveys women enrolled in six sections of a feminist self-defense class or another state university class. A total of 292 participants (*SD* = 118, *Other* = 174) were recruited, with a mean age of 21.5 years and predominately white (89.1%) (Hollander, 2010). The feminist self-defense class consisted of self-defense training and a small discussion group. The self-defense training class met once a week, for 3-hours, for a total of 10-weeks to practice the physical SD techniques. The small, weekly groups met for 1.5 hours and discussed the psychological and emotional aspects of SD.

Overall, the SD class was a total of 45-hours over the academic term. Participants were surveyed once over the academic term using two self-administered surveys. The first survey was an instrument created by the researcher to assess the participant's reasons for taking SD or not. The survey asked questions like "have you ever taken a self-defense class?" and "what led you to sign up for this self-defense class?" The survey followed up such questions by asking respondents *why* they may have decided to take an SD class or *why* a respondent chose not to engage in SD instruction.

The participant's previous experience with sexual violence was assessed using the Sexual Experiences Survey (SES). The SES is a 10-item survey used to determine a person's history of sexual assault. The resulting SES score identified a person’s severity regarding their past experience with an unwanted sexual interaction (e.g., sexual contact, sexual coercion, attempted rape, and rape), from least severe to most severe. In addition to the self-administered survey, Hollander (2010) also interviewed 20 women enrolled in the feminist SD class. The interviews were conducted at different points in the study to capture the process and results of learning SD. The researcher used an exploratory analysis to analyze the survey and interview data.

Initial analysis of the SES revealed that the women in the SD class had a higher reported rate of sexual assault (76.3%) than women in other classes (64.4%). Women not enrolled in the SD class also reported a higher rate of never experiencing any form of sexual assault (35.6%) than women in the SD class (23.7%). Hollander (2010) further noted that the women in the self-defense class were, on average, slightly older (21.8 years) than the women not taking self-defense (20.7 years). The reasons given by the women for enrolling in the SD class were the following: to learn how to defend themselves (63%), become more assertive or self-confident (54%), learn how to protect themselves verbally (49%), they had heard about other women who were attacked (21%), feeling fearful (18%), and personal experience of being attacked (10%). Analyzing further, Hollander (2010) evaluated the data of participants who reported previous experience with SD training (e.g., 1-hour SD workshop to martial arts classes). The number one response these individuals were taking SD was to learn how to defend themselves physically (Hollander, 2010). Hollander (2010) further noted that while only 10% of the reported 'being attacked' motivated to take the SD class, over 75% reported experiencing some form of sexual violence (e.g., assault, rape, coercion).

Hollander (2010) concluded that fear or threat of victimization and violence was a common motivator for why participants engaged in SD than actual experiences of violence and assault. The participant's specific reasons for taking the SD class support her conclusion. Some of those reasons included hearing about other women being attacked (21%), out of feelings of fear (18%), and someone they had known was attacked (9%). The researcher concluded that fear of violence was one of the significant sources of motivation for engaging in SD training, besides word of mouth and self-improvement. The findings by Hollander correlate with the results of other studies on fear of crime and self-defense training (Hollander, 2014; Hollander, 2016;

Rader, 2010). Researchers note, regardless of age (younger versus older), fear of victimization and crime is a common reason why many engage in self-protective activities or behaviors (Hollander, 2010; Liska et al., 1998; Rader, 2010; Rader & Haynes, 2014; Rountree, 1998; Wilcox et al., 2006). Two common self-protective behaviors are constrained behaviors (e.g., taking self-defense classes, buying a gun, owning a watchdog) and avoidance behaviors (Hollander, 2010; Liska et al., 1998; Rader, 2010; Rader & Haynes, 2014; Rountree, 1998; Wilcox et al., 2006).

Hollander (2014) further highlights the benefits of engaging in SD training as a preventative, direct, and indirect method for resisting violence. The researcher contends that self-defense training provides the necessary tools (e.g., physical and verbal resistance) to avoid a potentially threatening situation (Hollander, 2014; Ullman, 1998; Ullman, 2007). Holland (2014) and other researchers determine there are positive outcomes to engaging in self-defense training (e.g., improved self-esteem, self-efficacy, assertiveness, and a reduction in fear) (Brecklin, 2008; Brecklin & Ullman, 2005; Ozer & Bandura, 1990; Weitlauf et al., 2000). A study by Leanne R. Brecklin (2008) highlights some benefits and outcomes of engaging in self-defense training.

Brecklin (2008) argues that most self-defense classes' primary objective is to strengthen a person’s ability to defend themselves from potential harm. However, self-defense training extends beyond physical SD, impacting a person psychologically and behaviorally. Brecklin (2008) conducted a thorough review of 20-studies evaluating women's self-defense training's physical, psychological, and behavioral impact to test this theory. Of the 20-studies reviewed, eight were from published journal articles, and twelve were from unpublished doctoral dissertations. Each of the studies included one type of control group and pre- to post-tests of the treatment group. Analysis of the 20-studies garnered notable results. The findings regarding the

physical benefits of engaging in self-defense focused on psychological or attitudinal outcomes and behavioral outcomes.

Analysis of the psychological or attitudinal outcomes revealed six effects of self-defense training. The six outcomes noted were the training on assertiveness, self-esteem, anxiety, perceived control, fear of sexual assault, and self-efficacy (Brecklin, 2008). The study further revealed that individuals engaged in SD training experienced a statistically significant increase in positive assertiveness at post-tests. While any change in assertiveness was not maintained at follow-up unless paired with assertiveness training. The studies also showed that participation in SD training led to higher self-esteem post-treatment, which was maintained for three to six months at follow-up.

Similarly, SD training demonstrated a statistically significant reduction in anxiety post-treatment and follow-up. Engagement in SD training was further noted to decrease the participant's feelings of helplessness, increase perceived control post-treatment, and significantly at follow-up. Brecklin (2008) indicates this was due to the effects of the training on the increase in the locus of control. SD training was also found to reduce feelings of fear among survivors of a sexual assault than survivors without any training. Specifically, altering feelings of fear of assault into positive anger directed at the attacker or thought of being attacked. Studies evaluating the use of concrete forms of anger note individuals who respond in anger at being attacked are more likely to survive the traumatic incident (Brecklin, 2008; Gaddis, 1990; McCaughey, 1998; Rentschler, 1999). Of the multiple SD studies on self-efficacy, the training significantly increased a participant's interpersonal, physical, and self-defense self-efficacy post-treatment, and results were maintained at follow-up. The findings indicate that any statistically

significant change in self-efficacy was the participant's belief about thwarting an attacker or a potentially violent situation.

Brecklin (2008) further noted two-behavioral outcomes of SD training: physical competence and avoidance behaviors. Most studies revealed that SD training led to more significant physical competence post-treatment. Physical competence was often defined as feeling stronger, more active, and more competent by engaging in the training. The physical competence gained from the SD training was also maintained at follow-up. Self-defense training was also shown to significantly reduce avoidance behaviors and increase participatory behaviors post-treatment and follow-up. Based on the findings, the researcher concluded that self-defense training improves long-term psychological, attitudinal, and behavioral outcomes. The researcher also notes the empowering aspects of SD training, allowing a person to choose the best strategy when faced with violence or a sexual assault. While also supporting a more enhanced view of survivors as strong, independent, and capable of managing their fears and addressing threatening situations.

Self-Defense Training: Empowering Survivors

Sufficient evidence has been found to support the empowering effect self-defense training can have for survivors of violence or assault (Ball & Martin, 2012; Brecklin, 2004; Brecklin, 2008; Brecklin & Ullman, 2005; David et al., 2006; Ellison, 2014; Holland, 2010**).** Thompson (2014), a self-defense instructor, argues that self-defense training is more than an option or physical response to violence. Instead, self-defense training is a mechanism used to promote effective social change "to recognize, prevent, and interrupt violence (Thompson, 2014)." Self-defense training enhances a person's freedom and allows survivors to contextualize violence on their terms (Thompson, 2014). To explore further the empowering effects of self-

defense training, Thompson (2014) interviews over 29-self-defense instructors. The instructors were recruited from IMPACT International, identified as personal safety, assertiveness, self-defense program, and the National Women's Martial Arts Federation (NWMAF; Thompson, 2014). The interviews aimed to increase understanding of self-defense and promote discussion of an approach the researcher identifies as empowering self-defense training.

Though the researcher does not provide an overview of how the interviews were conducted, the article focuses on four major themes that emerge. The four themes to emerge on self-defense training as empowering approach were: placing violence in a social context, holding perpetrators responsible for violence, centering embodiment, and offering a comprehensive self-defense toolbox. Concerning the first theme, Thompson (2014) states that instructors empower survivors to understand that violence is a social issue, not an individual one. Training helps survivors understand they are not alone in their experience and thus dispels feelings of isolation. The second theme denotes that self-defense training also places the responsibility on the perpetrator for the violent act. By shifting the blame, which is commonly placed on the victim, the training supports the individual's decision to protect, defend, or ensure survival. In the third theme, the researcher stated a person’s reactions to violence become incorporated into their self, feelings, and bodies, in various degrees, due to living in a violent society. For some individuals, such as women or even older adults, this embodiment of violence emerges as perceived vulnerability, that some are more physically superior (e.g., stronger, bigger) to others. Self-defense training shifts this by helping survivors recognize and embrace their capability to defend themselves physically, mentally, and emotionally.

The instructor promotes empowerment by offering valuable and practical self-defense training skills and opportunities for practice. Lastly, a comprehensive self-defense toolbox is

identified as the key to empowering survivors and promoting personal safety. Thompson (2014) iterates the physical self-defense response (e.g., kicking, striking, punching) to a threatening situation should be enacted as a last resort. True empowerment means teaching individuals how to respond to violence in a non-violent, effective way. Learning how to diffuse and de-escalate a situation can be as powerful as responding with physical self-defense.

Survivors of assault indicate that ‘verbal' self-defense permits them to forgo politeness when feeling vulnerable and unsafe. Verbal self-defense empowers survivors to take back their space and prioritize personal safety. Training, including verbal and emotional tools combined with physical skills, provides survivors the confidence to maintain their safety and improves daily interactions with others. The findings of the studies previously discussed highlight the empowering nature of self-defense training for both survivors and individuals fearful of crime (Brecklin, 2008; Hollander, 2010; Hollander, 2014; Thompson, 2014). Additionally, multiple studies have supported self-defense training as a mechanism of empowerment for a person’s perceived self-efficacy (David et al., 2006; Ozer & Bandura, 1990; Sanders, 2014; Sanders & Murray, 2018; Weitlauf et al., 2001). The following discussion highlights the literature on the effectiveness of self-defense in maintaining personal safety.

Self-Defense Training: A Preventative Measure

Little to no research has examined the preventive measures of older adults engaging in self-defense (SD) training. The studies on the preventative measures of SD training have primarily focused on women and college-age students (e.g., Brecklin & Ullman, 2005; Hollander, 2014; Ozer & Bandura, 1990). The studies examining the effectiveness of self-defense training note the training is meant to help women avoid, prevent, disrupt, and resist assault (Hollander, 2016). SD training then empowers a person to take their safety into their own

hands and address their personal safety needs (Hollander, 2014; Hollander, 2016). Researchers continue to assess if SD training effectively prevents someone from being the victim or survivor of a crime.

A study by Hollander (2014) examined the effectiveness of a 10-week SD class one year after engaging in the training. The details of this study are provided later in the literature review. The study provided 10-weeks of SD training to 117 college-aged (i.e., mean age of 21.1 years) women. The study conducted a follow-up survey one year after the last SD class. At follow-up, 23% of all the female participants reported at least one "unwanted sexual experience (i.e., attempted rape, assault). The participants in the treatment group (i.e., participants who took the SD class; n = 12.0%) reported fewer assaults at follow-up than the comparison group. The comparison group (i.e., non-SD students; n = 30.6%) reported a greater rate of sexual assault, with 2.8% reporting experiencing rape. The study also noted that the women who took the SD class (i.e., treatment group) reported higher self-defense self-efficacy (SDSE) over time than those in the comparison group. An analysis of the comparison group or non-SD students revealed no change in SDSE at follow-up.

Additionally, the study noted the assailant type or type of perpetrator (i.e., stranger, acquaintance, or intimate) influenced SDSE. The study results noted that the women's confidence levels in the SD group (i.e., treatment group) were less influenced by assailant type than the women in the non-SD class (i.e., comparison group). The study results revealed that the women who received SD training anticipated their SD skills would effectively protect their safety if attacked. Whereas the comparison group had no change in belief that they could use SD techniques to protect themselves from an assailant. Hollander (2014) concluded that women who

engaged in a ten-week SD training class experienced significantly fewer sexual assaults than women who received no SD training.

Another study by Brecklin and Ullaman (2005) examined whether SD training influenced a woman's psychological and physical responses to an actual attack. A total of 1,623 college-aged women with a mean age of 21.7 years from over 32 higher education institutions across the U.S were surveyed. The researchers aimed to compare data from assault survivors with self-defense or assertiveness training to survivors without training. Using a 10-item Sexual Experiences Survey, those surveyed were measured to assess sexual assault experiences. Respondents who reported being survivors of a sexual assault were asked additional questions regarding their experience.

The follow-up assessment inquired whether survivors engaged in any SD or assertiveness training and the victim-offender relationship. Assault characteristics or the offender's aggressive behavior (i.e., twisting the survivor's arm, hitting, slapping, choking, beating, or using a weapon) used to make the survivor cooperate was also assessed. The survivor's resistance level (i.e., screamed, ran away, physically struggled, pushed, hit, scratched, pleaded, reasoned, cried) was also evaluated. Lastly, the survivor's perception of the assault was examined. The study used the following to assess assault perception: the respondent's perception regarding the effectiveness of the resistance (i.e., assailant stopped, became less aggressive, or became more aggressive), the emotions felt at the time of the assault (i.e., fear, anger, sadness), and post-assault experience (i.e., disclosure of the experience).

The results of the study revealed that 29% of the respondents had experienced rape followed by some type of unwanted sexual contact (27.3%), sexual coercion (21.1%), or attempted rape (22.6%). Of those who reported being survivors of a sexual assault, 13% reported

engaging in SD training or assertiveness training before the assault. The results also noted that 49.1% of the offenders knew the victim well, and the assaults were unplanned or spontaneous (55.6%). Additionally, only 37.8% of the offenders used physical aggression or verbal threats (15.7%). Alcohol also played a factor, with 41.6% of survivors reporting using alcohol and 50.9% of offenders before the assault.

The majority of the survivors of the sexual assault (82%) reported using some form of resistance. Seventy-nine percent reported fighting back (i.e., physically struggling, pushing, hitting, scratching), and forty-seven percent reported running away. Survivors (52.9%) further shared that the offenders either stopped or became less aggressive once they fought back or ran. Regarding the perception of the assault, most of those surveyed reported a moderate level of resistance and viewed offenders as primarily responsible for the assault. Survivors who reported a higher resistance level also believed they were moderately responsible for the assault. Most respondents reported experiencing moderate levels of fear, anger, and sadness when the assault occurred. At least 90.3% of the respondents viewed their assault as something other than rape, and only 51.4% indicated they had discussed the experience with another person. Additionally, 19.1% of survivors reported having suicidal ideation after the assault.

Comparing the data from survivors with SD training versus those without any training revealed additional insight. Brecklin and Ullman (2005) noted survivors of sexual assault with prior SD training were more likely to prevent the escalation of an attack than those with no training. The findings also revealed that survivors with SD training believed the training allowed them to stop the offender rather than those with no training. Additionally, the researchers noted survivors with training did not scream, run away, or physically struggle more than those without training. They concluded that survivors with SD training might be more selective in *how* they

resist, which prevented an assault situation from escalating or turning into a physical altercation. The study's findings noted that survivors with training reported being angrier and less scared during an attack than those with no training. The researcher concluded that SD training helped individuals learn how to channel their emotions effectively.

The findings also revealed that survivors with SD training seemed to feel more responsible for their assault than those without training. Brecklin and Ullman (2005) maintained that women with SD training might feel they should have "known better" or identified the signs of a dangerous or risky situation. The survivor's perception of control over future assaults can play a role in how a survivor may view their responsibility in a situation. Additionally, survivors who believed they were more responsible also thought they should have resisted more, or their resistance was lower than those with no training. Based on the study's overall findings, Brecklin and Ullman (2005) determined SD training provided the necessary skills to help a person (i.e., a woman) successfully fight off an attacker compared to those without training. The studies by Hollander (2014) and Brecklin and Ullman (2005) provide some evidence that SD training may effectively prevent future assaults. Additional research will be needed to evaluate if the same findings apply to older adults and whether SD training is preventative of future assaults for this age group.

Self-Defense and Implicit Training Approaches

The literature examining self-defense and implicit training approaches note that an implicit approach can positively influence skill acquisition (Gabbett & Masters, 2011; Sanders, 2014, Sanders & Murray, 2018). Studies examining the impact of skills learned implicitly note the less a learner is conscious of micro-details about a task, the better they perform and retain the skills being learned (Gabbett & Masters, 2011). Often the learner progresses from conscious

processing of information during the novice stage to an unconscious performance of the skill as they progress to an expert level (Gabbett & Masters, 2011). Providing implicit training approaches allows a learner to process information unconsciously, allowing a skill to become automatic and require little to no attention to perform (Gabbett & Masters, 2011). Implicit training approaches that employ errorless learning and analogies during skill performance dissuade the conscious or explicit detailing of a motor process (Gabbett & Masters, 2011). Even though explicit information processing may be necessary for a novice learning a new skill in the beginning. Using implicit learning to reduce the focus on task-related rules can increase skill acquisition, promote greater performance, enhances error correction, and skill retention over time (Gabbett & Masters, 2011). Implicit learning approaches can also reduce psychological stress and fatigue experienced by the learner, promoting ongoing skill acquisition (Gabbett & Masters, 2011).

A study examining the benefits of implicit versus explicit learning on the acquisition of self-defense (SD) skills had several notable findings (Sanders & Murray, 2018). The details of this study are discussed in detail later in the literature review. However, for the present discussion, the study by Sanders and Murray (2018) noted implicit self-defense instruction led to better accuracy in performing an SD skill than explicit instruction. In addition, implicit SD instruction led to a faster performance (i.e., performance speed) of an SD skill than explicit instruction. In contrast, explicit SD instruction resulted in greater skill efficiency or effectiveness than those receiving implicit instruction. The study's findings provide evidence that an implicit self-defense training approach can enhance the learning process and skill performance. The primary benefit of an implicit training approach is that it lessens an individual's potential to overthink a task or performance of a skill by minimizing cognitive distractions (Gabbett &

Masters, 2011; Poolton & Zachry, 2007; Sanders and Sanders & Murray, 2018). Preventing the overthinking of a skill or task is desired for anyone dealing with an unsafe or threatening situation.

Self-Defense Training Delivered Remotely Online

Before COVID-19, self-protection programs (i.e., self-defense, martial arts, and gun safety) were primarily provided in person (Koerner & Staller, 2022). Providing self-protection practices involving physical self-defense training seemed inappropriate for virtual learning (Koerner & Staller, 2022). However, during the pandemic, the stay-at-home and shelter-in-place restrictions made access to services like self-protection training non-accessible (Koerner & Staller, 2022). Adopting a distance learning approach (e.g., remote online learning) to self-defense (SD) instruction made training more feasible during the pandemic (Koerner & Staller, 2022). Like tele-counseling, individuals could easily access SD instruction and training without leaving their homes (Koerner & Staller, 2022).

Some contextual challenges to providing self-defense online are providing effective coaching, adjusting in-person teaching methods for online training, and helping individuals maintain motivation while learning (Koerner & Staller, 2022). Koerner and Staller (2022) note that changes in a learner's training environment (i.e., the remote online delivery of teaching methods versus in-person) can influence their motivation and conceptualization of what is being learned. Currently, there is little to no research on the remote online delivery of self-defense during COVID-19. However, one study by Torriani-Pasin et al. (2021) provides insight into the benefits of providing physical activity, like self-defense training, remotely online.

The study examined the benefits of a remote online physical exercise program for stroke survivors quarantined during the pandemic. The study evaluated adherence rate, barriers,

attendance, safety, and overall experience of offering the online exercise program to this population. The study recruited 36-stroke survivors with a mean age of 55.1 years. Before COVID-19, these participants attended a face-to-face physical exercise program. To counter the physical restrictions set by COVID-19, participants were offered two sessions a week over 22-weeks, with physical exercise provided asynchronously. Participants were assessed through a weekly questionnaire developed for the study and weekly calls with the exercise team. The assessment evaluated perceived barriers, exercise adherence, attendance, safety, and participants' overall experience.

The study results found that adherence to a remote online exercise program was 86.9%. The results also revealed that 5.7% of participants reported experiencing pain during the exercise session or one day after (6.3%). 11.6% of participants reported a fear of exercising when engaging in the exercise session. In comparison, a majority (88.4%) reported feeling safe engaging in the online exercise program. The study noted that some of the barriers to attendance were technology-related challenges, health appointments, lack of time, presence of pain, fear of injury, and personal issues. Participants also reported feeling safer engaging in activities at home, provided accessible communication with the exercise team, and offered the necessary social support. The researchers also noted that the participant's overall experience of the remote online approach was reportedly positive. Participants also reported that the experience positively impacted their lives and relationships and was supported by caregivers. However, although most reported satisfaction with the online exercise program, they did not feel it should replace an in-person program. The researchers concluded that a remote online physical exercise program could be a tangible approach for individuals unable to engage in a face-to-face program. The researcher further noted that a synchronous approach might have addressed the noted barriers and promoted

more significant social interaction. Thus, there are some notable benefits to providing physical activities, once relegated to an in-person approach, virtually online.

Benefits of Providing Self-Protection Remotely Online

Research indicates several advantages to offering self-protection or physical programs, like self-defense, remotely online (Koerner & Staller, 2022; Torriani-Pasin et al., 2021). Some notable benefits beyond accessibility are that it promotes awareness and allows learner exploration of functional movement and error correction (Koerner & Staller, 2022). The remote online delivery of programs like self-defense also provides a sense of community and social relatedness in an online group setting (Koerner & Staller, 2022). An online approach can also promote adherence to physical activity for those who are unable to participate in face-to-face programs (Koerner & Staller, 2022; Torriani-Pasin et al., 2021). The overall benefit is a remote online approach to physical interventions, like self-defense, is that it can reduce sedentary behavior and promote skill acquisition in the learner (Koerner & Staller, 2022; Torriani-Pasin et al., 2021).

COVID-19 has forced many services and fields of research to adapt to unprecedented circumstances. Online programs that provide synchronous coaching can still promote skill-building, adaptation, and creative problem-solving, which is necessary for practical self-defense (Koerner & Staller, 2022; Torriani-Pasin et al., 2021). A discussion on using self-defense training to raise perceived self-efficacy will now be provided.

Applying SCT: Self-Defense Training

Effects of Self-Defense Training on SE

As previously noted in the analysis conducted by Brecklin (2008), self-defense training has been shown to positively impact a person's interpersonal, physical, and self-defense self-efficacy. A hallmark study that's influenced further research involving self-efficacy and self-defense training was conducted by Ozer and Bandura (1990). The researchers affirm that personal empowerment is integral to addressing the social issue of violence and sexual assault. The training must promote a productive means to exercise greater control in order for self-protective measures to be effective. The researchers maintained that increasing a person's self-efficacy through self-defense training will increase their capability to thwart a threatening situation. The study aimed to evaluate if the mechanisms governing perceived self-efficacy for addressing physical threats of sexual assault had any significant effect.

Ozer and Bandura (1990) hypothesized that engaging in self-defense training that offered mastery experiences increased self-efficacy, increased cognitive control and coping mechanisms, and decreased anxiety. Study participants consisted of 43 women (mean age of 34) who had signed up to engage in a community-based self-defense program. The design and procedures of the study consisted of three-phase, at which time the participants were assessed. The study's three phases consisted of a control phase, a treatment phase, and a follow-up phase. In the first or control phase, only 23 of the participants were assessed (Pretest 1) before engaging in the intervention (e.g., self-defense program) and again 5-weeks later (Pretest 2). The control phase spanned the same time as the treatment phase and was used to gain baseline measurements.

The second treatment phase engaged participants in the mastery modeling self-defense program intervention. The mastery modeling program consisted of five sessions of self-defense

training lasting 4.5 hours each, for a total of 5-weeks. The training program required all participants to learn several sequences of self-protective skills (e.g., kicks, elbow strikes, knee strikes, palm strikes, eye strikes) targeting specific areas of the assailant's body. The purpose of learning these specified skills was to counter various assaultive attacks or violent situations. Participants were also required to demonstrate the protective skills learned during simulated attacks by a male assailant wearing specially designed protective gear. During the simulated attack, the assault sequence would end when the assailant indicated the participant delivered a minimum of three knockout blows. The mastery modeling self-defense program also provided participants with verbal techniques for addressing potentially assaultive encounters.

Participants were also required to model confidence and deal assertively (e.g., yell, use firm speech) when encountering inappropriate behavior or assault actions during the simulated attacks. The design of the 5-week self-defense program promoted mastery experiences for optimal skill acquisition. Thus, as a participant's self-defense skills and capability to deal with an attacker increased, so did the force and effectiveness of their assaults. At the end of the five-week program, participants were assessed once again. Six months from the end of treatment (i.e., follow-up phase), Ozer and Bandura (1990) assessed participants again to determine if any training effects were maintained.

The variables measured during each of the three phases were perceived self-efficacy, thinking patterns, anxiety arousal, and avoidant behavior. To various self-efficacy factors, a Perceived Self-Efficacy Scale (PSES) consisting of 37-items was used to assess interpersonal self-efficacy (8-items), activities self-efficacy (17-items), and self-defense self-efficacy (12-items). Each item was rated on an 11-point Likert scale. The participant's cognitive control self-efficacy was also assessed using an instrument not readily identified in the study. Even though

Ozer and Bandura (1990) failed to mention the instrument's operational name, its purpose was to rate the participant's ability to control thoughts involving sexual assault. Thinking patterns were also assessed using un-identified instruments to rate negative thoughts (6-point Likert scale), personal vulnerability (10-interval scale from not at all to highly vulnerable), and risk assessment and discernment (two 10-interval scales). The participant's anxiety was also assessed using a 10-interval scale, ranging from high anxiety to no anxiety at all. Avoidant behaviors were measured by evaluating restrictive behaviors that kept participants from engaging in various activities (e.g., jogging, walking, bicycling, going to other neighborhoods in the city, going to the movies, or working late hours). There were ten different activities the participants rated on an 11-point Likert scale, which assesses the frequency in which the activity was engaged in or not; due to concerns involving personal safety gain. Twenty-three participants were evaluated during the control phase. In contrast, all participants were assessed at the end of the treatment phase and 6-months later during the follow-up phase.

The participant’s acquisition of the self-defense skill was also assessed through a skills test. The skills test evaluated seven components: timing, power, focus, aggressiveness, explosiveness, flexibility, and persistence. Based on these seven components, the participant’s performance was ranked and coded on a scale from poor to excellent. The researchers also rated the overall effectiveness of the self-defense skill on an 11-point Likert scale, ranging from ineffective to knockout performance. The purpose of the skills test was to see how well the participant performed the self-protective skills learned. The skills test was only provided during the treatment phase and 6-months later during the follow-up phase.

T-tests were conducted to evaluate each phase of the experiment, and mean scores and standard deviations were assessed for each variable. The study results showed participation in the

5-week training significantly increased the participant's self-efficacy towards using self-defense to protect oneself, exert control over interpersonal situations, and engage in activities once avoided. Self-defense self-efficacy was found to be maintained at follow-up, six months after the end of the self-defense program. The researchers also found that high perceived self-efficacy led to increased perception and discernment of risk. The same was found for anxiety arousal. Coping self-efficacy was also positively correlated with lower avoidant behaviors and greater involvement in leisure activities. Significance was also found between the treatment and a reported reduction in negative thoughts. Participants reported a statistically significant decrease in negative thoughts, with the follow-up phase data showing the most considerable reduction and perceived cognitive control over negative thoughts. The researchers ascertained that a participant's level of perceived self-efficacy influenced their sense of overall personal vulnerability. After completing the treatment phase or mastery modeling program, participants reported a reduction in personal vulnerability.

The same was found for the perception of risk. High perceived self-efficacy resulted in increased discernment and perception of risk. As for the effects of the treatment on anxiety, varying facets of perceived self-efficacy correlated with the level of anxiety a participant experienced. Thus, high self-efficacy resulted in low anxiety arousal. The same was noted for avoidant behaviors. Upon completion of the mastery modeling program, participants reported greater social engagement and a willingness to participate in various recreational activities due to the treatment. Of the various self-efficacy measures, high coping self-efficacy resulted in higher involvement in activities and low avoidant behavior. Analysis of the behavior or skills tests revealed that increased perceived self-efficacy did not lead to higher skill execution. The researchers did find significance between increased self-defense skills and thought patterns. The

study's findings indicated a participants' perceived personal vulnerability decreased as their self-defense skills increased. Ultimately, the study by Ozer & Bandura (1990) supports the idea that self-defense training notably influences an individual's self-efficacy beliefs for managing potentially threatening situations. The study's findings also reveal that increasing self-efficacy reduced anxiety, perceived vulnerability, avoidance behaviors, negative thoughts related to victimization, and increased risk discernment.

In another study conducted by Weitlauf, Smith, & Cervone (2000), the impact of self-defense training on various forms of self-efficacy, self-esteem, perceived risk or locus of control, assertiveness, and aggression. The researchers contend that the pervasive and ongoing concern for one's safety is prevalent for many in the US, especially women. The concern for personal safety, as previously highlighted, leads to an increase in avoidant behaviors. Engaging in avoidant behaviors causes many to restrict their freedom, behaviors, and activities to avoid victimization threats. Weitlauf, Smith, & Cervone (2000) propose developing and improving physical self-defense competency to evaluate the impact of self-defense training on a person's belief in exerting control over a threatening situation. A total of 80-female participants, with a mean age of 18.3 years, were recruited to engage in a six-week self-defense training program. Each participant was randomly assigned to an experimental group or waitlist control condition. The experimental group received immediate training, whereas the waitlist group received training after the control phase. Both groups were assessed three times: pre and post-intervention, and 6-months at follow-up. The experimental group was evaluated before the self-defense training program started and at the last training session. Then again, 6-months after the training had ended. The control group was assessed pre and post-intervention, at the same time

as the experimental group, when the group received training. At the end of the training program, the control group was assessed for the third time, which replaced a follow-up assessment.

The self-defense intervention or training program took place once a week for six weeks, with each session lasting 2-hours for a total of 12-hours. The self-defense training included three specific training levels: emotional and psychological resistance, physical resistance, and verbal resistance. Physical resistance training consisted of practicing and learning basic self-defense techniques (e.g., punches, blocks, strikes, kicks, hold breaks). The verbal resistance included training in using their voice as a tool of resistance and for seeking help. Participants were also instructed on commanding speech patterns, yelling 'no' effectively, shouting, and expressing anger persuasively. The emotional and psychological instruction included emotion control and various breathing or relaxation techniques to develop problem-focused coping skills. The purpose of having the emotional and psychological techniques was to teach participants how to control anxiety or arousal levels when faced with a threatening situation. The researchers maintained that including such techniques could help individuals deal with the situation more effectively (e.g., escape plan, thwart the assault, and develop fighting strategies). Participants also attended three 1-hour group sessions, during which assessments were administered.

The instruments used to assess participants were four rating scales developed by Ozer and Bandura (1990). One scale was used to rate a person's perceived vulnerability (e.g., in general, the vulnerability of assault, fearfulness of being assaulted, frequency of thoughts about assault and personal safety, and perceived ability to discern risk) on a 10-point scale. Task-specific or self-defense self-efficacy was measured using a six-item instrument rated on a 10-point Likert. The scale assessed the participant's perceived ability to handle or deal with a threat of sexual assault. To test domain-specific self-efficacy, the researcher used the Physical Self-

Efficacy Scale. The Physical Self-Efficacy Scale, a 22-item instrument, evaluated the individual's perception of their physical characteristics and attributes (e.g., physical speed, power, strength, motor abilities) as rated on a 6-point Likert scale. General self-efficacy was assessed using Coppel's (1980) Self-Efficacy Scale. The scale is a 22-item scale used to determine a person's general belief to execute behaviors, rated on a 4-point Likert scale.

The Washington Self-Description Questionnaire (WSDQ) measured the participant's self-esteem. The WSDQ is a 14-item questionnaire, rated on a 4-point Likert scale, used to measure global self-esteem and one's appraisal of general self-worth. While the Internal, Chance, and Powerful Others Scales were used to evaluate perceived risk or the participant's locus of control, a portion of Levenson's (1972). The part used was the Powerful Others scale which rates on a 6-point Likert scale (from strongly disagree to agree strongly) a person's internal-external control and fate control at the hands of others. Changes in assertiveness and aggression were evaluated using two instruments: the Rathus Assertiveness Schedule and The Aggression Questionnaire (TAQ). The Rathus Assertiveness Schedule is a 30-item instrument used to rate, on a 6-point Likert scale, a person's assertive and nonassertive behaviors. The TAQ is an instrument used to evaluate aggression and hostility across four subscales: anger, hostility, physical aggression, and verbal aggression. By assessing each sub-scale on a 5-point Likert scale, the instrument provides insight into a person's level of hostility and aggression (Weitlauf et al., 2000).

The primary analysis of the data focused on evaluating four sets of variables. Those variables were identified as (1) task-specific (i.e., self-defense self-efficacy), (2) self-referent variables of general self-efficacy, physical self-efficacy, self-esteem, and powerful-others locus of control, (3) assertiveness and aggression variables, and (4) risk-related cognition variable. A repeated-measures multivariate analysis of variance (RM MANOVA) was used to analyze the

two groups (e.g., treatment group versus waitlist control group) by the three measurement time points (e.g., pre-treatment, post-treatment, and 6-month follow-up). The researchers also used an analysis of variance (ANOVA) to evaluate the means of the four variables pre and post-treatment. The variables were grouped into two clusters, allowing for a two (groups) by two (pre-post) ANOVA to be conducted. A follow-up univariate ANOVA was used to identify statistically significant differences amongst the variables if a significant multivariate effect on any variable sets was found.

Analysis of the data found both the experimental and control group reported a statistically significant increase among all the facets of self-efficacy assessed, from pre to post-six-week program. Self-defense self-efficacy was the largest pre-post effect size. The results indicated that the treatment and waitlist control group responded similarly to the training, and both experienced an equal increase in self-defense self-efficacy. Follow-up analysis of self-defense self-efficacy was found to be maintained 6-months after treatment. Analysis of the self-referent generalization measures (e.g., general self-efficacy, physical self-efficacy, global self-esteem, and powerful-others) revealed a statistically significant multivariate pre-post effect at the .001 level. The results indicated that high domain-specific self-efficacy (i.e., general and physical self-efficacy) led to greater self-esteem and heightened locus of control. Physical self-efficacy was the most significant influence on self-esteem and locus of control of the two domain-specific self-efficacy types (i.e., general and physical self-efficacy).

Analysis of self-defense self-efficacy on all self-referent variables (i.e., physical self-efficacy, general self-efficacy, self-esteem, and locus of control) noted a correlation, with scores higher after treatment than baseline. Therefore, as self-defense self-efficacy increased, so did the participant's overall physical self-efficacy, general self-efficacy, self-esteem, and locus of

control. Post analysis of follow-up data further revealed significant increases in general and physical self-efficacy 6-months after treatment had ended. A pre-post MANOVA of each group's assertiveness and aggression noted some statistical significance. The researchers found significant pre-post main effects, indicating self-defense training, decreased hostility, and increased positive assertiveness. Follow-up analysis revealed that the experimental group reported more significant control over hostility and physical aggression 6-months after treatment ended than the control group. Analysis of just the treatment group was conducted using an RM MANOVA to perform a Time 1 by Time 3 or pre-post analysis. The analysis aimed to determine if any significant delayed treatment effects were found. The analysis showed no delayed treatment effects on self-esteem or other variables in the treatment group. The analysis noted a significant decrease in the participant's anger and aggression at follow-up.

The risk-related cognitions analysis revealed no significant long-term change due to the self-defense intervention by the control group. In contrast, the pre-post analysis showed significant changes for the experimental group. The treatment or experimental group reported an increase, from pre to post-treatment, in thoughts related to safety and assault, a decreased sense of risk discernment, and a higher perceived risk of assault. Weitlauf, Smith, and Cervone (2000) contended that self-defense training had sensitized the participants to the threat of assault. However, follow-up analysis showed that the initial post-treatment for risk-related cognitions had not been maintained. Weitlauf, Smith, and Cervone (2000) further asserted that the treatment group's risk-related cognitions had returned to baseline levels, as the group no longer held an increased view of perceived risk. Based on the study's findings, Weitlauf et al. (2000) concluded that the intervention (i.e., self-defense training) could have a powerful impact on a person's perceived self-efficacy, especially self-defense self-efficacy beliefs. The researchers further

maintained that increasing a person's self-efficacy correlated with increased self-esteem, locus of control, positive assertiveness, and decreased physical aggression and hostility. Overall, Weitlauf et al. (2000) determined self-defense training as a suitable method for raising perceived efficacy beliefs to counter victimization and the threat of crime.

In the study by Hollander (2014), the effectiveness of SD training in preventing victimization or assault by raising SE was evaluated. Before this study, very little research had been done to evaluate the effectiveness of SD training in avoiding and resisting an assault. To determine the effectiveness of the training, Hollander (2014) recruited a total of 286 women with a mean age of 21.1 years and predominately white (82.5%). Her sample was recruited from a women's self-defense class (n = 117) and other university courses (n = 169; e.g., English, Dance, Biology, Geography). The self-defense class met once a week, for up to 3-hours per week, for a total of 10-weeks. Those enrolled in the self-defense class were also required to participate in a small group discussion focused on verbal SD and the psychological/emotional aspects of SD. Participants were measured at the beginning of the academic term, in the first class, and one year from the end.

The instruments used to measure participants were the Sexual Experience Survey (SES), a Self-Defense Self-Efficacy Scale, and Assailant types. The SES is a 10-item instrument identified as having behaviorally specific questions that categorize a person's overall SES score in four categories of unwanted sexual experiences (e.g., sexual contact, sexual coercion, attempted rape, and rape). The Self-Defense Self-Efficacy Scale is a 12-item instrument rated on a 10-point Likert scale, assessing the individual's ability to use self-defense techniques. The Assailant type was a 2-item instrument rated on a 6-point Liker scale that assessed the individual's ability to defend against a stranger versus an acquaintance or intimate partner. The

assailant-type items were included with the Self-Defense Self-Efficacy scale. In addition to surveying all participants, Hollander also conducted face-to-face, 45 to 90-minute interviews with 20 self-defense participants. The goal of interviewing the participants was to understand better the individual's experience with the self-defense training, perception of self-defense, and experiences relevant to completing the class.

A chi-square analysis evaluated any differences between those taking self-defense versus those not taking SD. No statistically significant difference was found amongst the participants at baseline for race, previous assault experience, or intimate partner violence. The only significant differences at baseline were that the self-defense participants were, on average, one year older than the non-self-defense participants and consisted of upper-class students (e.g., juniors and seniors). The majority of the self-defense participants were also more likely to report a prior experience of sexual assault. The researcher used a repeated-measures ANCOVA to evaluate the results of the self-defense self-efficacy data. The analysis results found a significant interaction due to the participant's reported increased self-defense self-efficacy. The self-defense participants, in particular, showed a more significant increase in self-efficacy, over time, than the non-self-defense participants. The data analysis also revealed a significant main effect of time and a significant interaction between time and class type. The results indicate that women who engaged in self-defense reported a higher self-efficacy for defending themselves than those not taking self-defense. An analysis of the follow-up data revealed increased self-efficacy due to engaging in self-defense training was maintained 1-year after treatment.

Women in the self-defense class also reported a higher self-efficacy for defending themselves against an acquaintance or intimate partner than the non-self-defense participants. Additionally, the majority of the self-defense students interviewed stated that learning self-

defense helped bolster their self-confidence regarding protecting themselves. Some self-defense participants indicated using the SD skills learned during the follow-up interviews. Many who used SD skills reported that the techniques helped thwart and deescalate potentially threatening situations. Hollander (2014) concluded that the findings support that self-defense training effectively addresses threatening situations involving safety. The researcher also concluded that the results support self-defense training to increase a person's fear of victimization and vulnerability to violence. The findings of the study by Hollander (2014) provide credence, again, to using self-defense training to address the fear of crime by raising perceived self-efficacy.

Another foundational study conducted by Ozer & Bandura's 1990 evaluated the effects of two different types of self-defense training on perceived self-efficacy (Ball & Martin, 2012). The goal of comparing these two forms of self-defense was to determine if one had a marked influence on the participant's self-efficacy and affect over the other. A study by Ball and Martin (2012) chose to compare traditional martial arts (TMA) to modern self-defense training (MSDT) in order to evaluate which one had a more significant influence. Ball & Martin (2012) had four hypotheses on engaging in MSDT versus TMA. First, the researchers hypothesized that engaging in MSDT would increase self-efficacy across activity, interpersonal, and self-defense domains, then those engaging in TMA. Second, they hypothesized that engaging in MSDT versus TMA would decrease five types of fear: fear of being alone, fear of stranger vulnerability, and general fear. Next, the researchers concurred that MSDT would positively influence the participant's mental well-being more than TMA. Lastly, the researchers hypothesized that MSDT participants would report higher interpersonal self-efficacy than the TMA group, and self-defense self-efficacy would be high for TMA and MSDT.

The researchers recruited 69-female participants, with a mean age of 26.3 years, who were assigned to one of three groups (MSDT, TMA, and a Stress Management Program). The study's design was structured, so two groups were assigned to either MSDT or TMA, and a third group (i.e., the control group) engaged in a Stress Management (SM) program. Thirty-two participants were assigned to the MSDT intervention, ten to the TMA intervention, and 27 to the SM program. Each group met once a week for 2-hours over eight weeks, resulting in 16-contact hours.

The Perceived Self-Efficacy Scale (PSES) was used to assess the participant's perceived self-efficacy. The PSES scale, developed by Ozer and Bandura (1990), contains 37-items rated on an 11-point Likert scale. The items in the PSES are divided into three subcategories to assess interpersonal self-efficacy (8-items), activities self-efficacy (17-items), and self-defense self-efficacy (12-items). The participant's level of fear was measured using a multidimensional fear scale, the Perception of Dangerous Situation Scale (PDSS). The scale is a 37-item instrument comprised of five subscales used to rate different fear types. The five subscales of fear rated on a 4-point Likert scale assessed general fear (8-items), life-threatening fear (15-items), stranger vulnerability fear (6-items), fear of theft (5-items), and fear of being out alone (3-items).

A participant's experience with sexual victimization and assault was assessed by a 17-item Sexual Experiences Survey (SES). The survey rates on a scale of 0 (i.e., never) to 5 (i.e., five or more times) the individual's experience with sexual assault in various degrees, from sexual coercion to threat and force. Based on the individual's overall scores, the participants were placed in one of five categories, ranging from no sexual victimization to completed rape. Lastly, the participant's social desirability was measured using the short form (M-C Form C) of the Marlowe-Crowne Social Desirability Scale. The short form (M-C Form C) is a 13-item

instrument used to rate true or false various statements on social desirability. For example, one of the questions asked is, "I sometimes try to get even rather than forgive and forget," and the individual is meant to answer true or false to the question.

A multivariate analysis of variance (MANOVA) and a test-retest reliabilities analysis was used to analyze the data. The results found both groups increased self-defense self-efficacy, from pre to post-test, with the MSDT group reporting the highest self-defense self-efficacy. On evaluating the five fears, only one of the five fears was shown to decrease pre to post-testing. A decrease in life-threatening fear was noted, with the MSDT group reporting the most significant reduction in this fear. Regarding sexual victimization, the data analysis showed that 19 reported no sexual victimization. Whereas 16 reported experiencing verbal coercive strategies, four reported attempted rape, and 25 reported being raped. No significant differences were found upon evaluating if any difference existed among the three groups for sexual victimization. The researchers concluded that the participants of all three groups had some form of comparative victimization history. Ball and Martin (2012) also concluded that self-defense training led to increased self-efficacy, reducing fear of future victimization. The training could substantially increase self-efficacy, depending on the type of self-defense training provided. The researchers determined that the findings provided additional support to self-defense training to raise perceived self-efficacy and reduce the fear of crime and victimization.

The influence of perceived self-efficacy (e.g., interpersonal SE, activities SE, self-defense SE, coping SE) on self-protective behaviors corresponds with previous research (Ball & Martin, 2012; Hinkleman, 2004; Hollander, 2010; Hollander, 2014; Hollander, 2016; Ozer & Bandura, 1990; Sanders & Murray, 2018; Weitlauf et al., 2000). Thus, indicating a reciprocal relationship between a person’s perceived self-efficacy and their confidence to engage in self-

protection (Ball & Martin, 2012; Hinkleman, 2004; Hollander, 2010; Hollander, 2014; Hollander, 2016; Ozer & Bandura, 1990; Sanders & Murray, 2018; Weitlauf et al., 2000).

Researchers note that as a person's self-efficacy with engaging in self-defense training increases, so do their beliefs about dealing with a violent or threatening situation (Ball & Martin, 2012; Hinkleman, 2004; Hollander, 2010; Hollander, 2014; Hollander, 2016; Ozer & Bandura, 1990; Sanders & Murray, 2018; Weitlauf et al., 2000). The implication of these findings is beneficial to the present study. The results support the current study's premise that raising the self-efficacy beliefs of older adults will reduce fear of crime. Leading off this supposition, a discussion on some of the studies that have evaluated the effects of self-defense training on the self-efficacy beliefs of older adults will occur.

Self-Defense Training: Older Adults and Perceived SE

Much of the literature on self-defense training has focused primarily on younger age groups. The majority of the literature has been focused on young to middle-aged adults. Very few studies evaluate the effects of self-defense training on older adults. Due to the effects of fear of crime and the statistics indicating older adults report a higher fear of crime. The reason given by some researchers for leaving this age group out of self-defense research is four-fold. First, much of the research on self-defense has focused on younger age groups impacted by crime and violence, especially young adults and college-aged students (Cummings, 1992; Hollander, 2010). Second, older adults experiencing physical limitations and cognitive issues (i.e., dementia, memory issues, etc.) is often in research as a barrier to engaging in research (Chase, 2011; Studenski, 2008). Thirdly, the fear of physical assault and the physical disparities (i.e., strength, balance, agility) between a younger attacker versus an older survivor may be too high, making self-defense ineffective (Barnett et al., 2007; Kombatarts.com, 2018). Lastly, some researchers

contend that self-defense may not be effective in altering a person's (i.e., older adult's) perception of crime as a singular approach to fear of crime (Asencio et al., 2014; Barnett et al., 2007; Pain, 1995).

The view that older adults are not appropriate to study has begun to change within the last two decades regarding self-defense or otherwise (Sanders, 2014; Sanders & Murray, 2018; Serfaty et al., 2016; Serfaty et al., 2021). In the field of Kinesiology, efforts to address common issues faced by older adults (e.g., frailty, falls, dementia, mobility issues, range of motion issues) by promoting the benefits of physical activity (e.g., improved cognition, improved motor learning, better physical health, decrease in anxiety and depression, improved executive function, reduces fall risk) (Callow et al., 2020; Hubner et al., 2017). The change in perception has also led to more researchers willing to study this population.

The research on physical activity among older adults has noted the benefits of older adults engaging in East Asian martial arts (e.g., karate or kung fu) (Jansen & Dhamen-Zimmer, 2012; Marie-Ludivine, 2010; 2018; Wagner, 2009; Witte et al., 2014). The research indicates East Asian martial arts have a marked improvement in an older adult's coordination, balance, postural control, aerobic activity, short-term and procedural memory, and wellbeing (Jansen & Dhamen-Zimmer, 2012; Marie-Ludivine, 2010; Sanders & Murray, 2018; Wagner, 2009; Witte et al., 2014). While also further reducing the risk of falling, reducing cognitive decline, and improving the emotional well-being and perception of the older adults' overall health Jansen & Dhamen-Zimmer, 2012; Marie-Ludivine, 2010; Sanders & Murray, 2018; Wagner, 2009; Witte et al., 2014). Many researchers agree that martial arts, often the basis of self-defense training, elicits more benefits than harm for older adults.

In a study by Witte, Kropf, Darius, Emmermacher, and Bockelmann (2014), the researchers sought to determine if martial arts was beneficial as a form of basic fitness training. The study determined if age-related karate training positively impacted cognitive functioning, motor reactivity, reactive stress tolerance, and divided attention. The researchers sought to compare the results of engaging in age-related karate training to participants involved in another sport (i.e., fitness program).

The researchers recruited 89 older adults with a mean age of 70-years, randomly assigned to one of three groups; two intervention groups and one control group (n = 29). The first intervention group (Group 1) was a karate group (n = 30), and the second intervention group (Group 2) was the fitness group (n = 30). The karate intervention (Group 1) and fitness intervention (Group 2) took place twice a week, for 60-minutes each session, for a total of 5-months. Both interventions included a warm-up phase, a training phase, and a cool-down phase. The warm-up phase included balance exercises to prepare participants, while the cool-down included strength training and games to facilitate a release in physical exertion. The karate training included basic techniques used in self-defense, from blocking and striking to kicking and simulating attack scenarios. The fitness intervention included running exercises, hand-eye coordination exercises, strength training, and even elements of gymnastics. The control group received no fitness or karate training and was only encouraged to engage in regular physical activity and complete the assessments.

The fitness group (Group 2) was assessed at two different time points: pre-intervention and post-intervention. In contrast, the karate group (Group 1) was assessed a third time, identified as post-intervention 2. The researchers state that the karate intervention and training were extended for another 5-months after the initial five-month intervention. The extension

aimed to gain further data from Group 1 and was classified as a second study. Therefore, this group was assessed again (post-intervention 2) at the second 5-month training period. The participants' cognitive functioning, motor reactivity, stress tolerance, and divided attention were measured. To assess cognitive functioning, the researchers used the DemTect test. The DemTect test includes five short tasks (memory formation by word list, number transcoding, semantic word fluency task, attention by digit span reverse, and delayed word list recall) that assess mild cognitive impairment and dementia. A low score on this test is indicative of poor cognitive functioning.

Motor reactivity was assessed through a rod test. A rod test is a simple motor test used to measure a person’s reactive ability to catch a rod dropped from a distance. The shorter the falling length of when the rod is caught, the better the reaction time. For assessing reactive stress tolerance, the researchers used the DT Determination Test, Version S11. The DT Determination Test, Version S11, is a computer-controlled test that rapidly presents color or sound stimuli during the test procedure. The participant's stress tolerance, attention, and reaction speed are assessed based on how quickly they react by pressing a response button once presented with the stimuli. A high score indicates poor reactive stress tolerance, while a low score indicates good reactive stress tolerance. The divided attention of the participants was assessed through the Test of Divided Attention, another computer-controlled test. The test itself requires participants to respond as quickly as possible to visual patterns that appear or acoustic tones occurring twice. The test evaluates the participant's dual-task performance (divided attention) in processing parallel acoustic and visual stimuli. Lower scores on this test indicate higher performance on tasks involving divided attention.

Witte et al. (2014) used two-way repeated measures (Time X Group) ANOVA to analyze the data. Time (e.g., pre-treatment, post-treatment 1, and post-treatment 2 for the karate group only) was identified as the within-subjects factor (Witte et al., 2014). The *group* (e.g., Karate group, Fitness group, and the Control group) was identified as the between-subject factor. A one-way ANOVA (factor time: pre, post 1, and post 2) and a pairwise Bonferroni post hoc test were conducted to gain further insight. The first analysis examined the initial 5-month study, with the karate group (Group 1) and fitness group (Group 2) receiving treatment. The analysis showed no statistically significant difference between the three groups, whereas the two-way repeated measures of ANOVA revealed several notable findings.

A significant effect was noted for motor reactivity, reactive stress, tolerance, and divided attention. The karate group (Group 1) reported the most significant improvement on all these measures. No significant difference was related to time, group, or interaction factors regarding cognitive functioning. A second analysis was conducted on the data gained from the karate group (Group 1), who engaged in five more months of training. Analysis of the 5-month extension noted higher pre to post-treatment improvements for cognitive functioning in word recall, motor reactivity, reactive stress tolerance, and divided attention. Witte et al. (2014) concluded that karate training led to physical and cognitive improvements in older adults, whether short-term or long-term. The researchers further resolved that improving reaction time (e.g., divided attention and rod test), balance, and coordination could be preventive measures for older adults during a dangerous situation (i.e., a fall or physical attack). This study's findings correspond with researchers, indicating self-defense as an appropriate intervention for this age group (Jansen and Dahmen-Zimmer, 2012; Marie-Ludivine, 2010; Witte et al., 2014).

Implicit Self-Defense, Older Adults, and Self-Efficacy

In a study by Sanders and Murray (2018), violence was recognized as a public health concern. One of the methods for addressing violence is encouraging individuals to engage in self-defense instruction. However, *how* instruction is provided to older adults is often overlooked. The aim of the study by Sanders and Murray (2018) was to evaluate if providing SD instruction implicitly (e.g., with little to no instruction) versus explicitly (e.g., with lots of instruction) had any effect on self-efficacy, skill improvement, well-being, or affect. Researchers in motor learning and development recognize implicit learning and explicit learning as two methods of acquiring knowledge and gaining new skills (Dienes & Perner, 1999; Sanders & Murray, 2018; Seger, 1994). Explicit learning is declarative knowledge used to know *what to do* when performing a skill or task and often involves a set of rules or regulations (Dienes & Perner, 1999; Magill, 2007, p. 229; Rendell et al., 2011; Sanders & Murray, 2018; Seger, 1994; Stevens et al., 2012). Learning experiences, like self-defense training, are often offered explicitly and fail to allow for error-less learning or self-reflection. An alternative method to explicit instruction is implicit learning and instruction.

Implicit learning is absent from explicit rules and involves unconscious awareness of what is being learned (Dienes & Berry, 1997; Reber, 1992; Sanders & Murray, 2018; Seger, 1994). The type of knowledge gained from implicit learning is known as procedural knowledge, or the understanding of *how* to perform a task, skill, or movement without awareness (Dienes & Berry, 1997; Magill, 2007, p. 229; Sanders & Murray, 2018; Poolton & Zachry, 2007). The nature of implicit learning, skills, and knowledge obtained implicitly is often hard to verbalize and must be physically demonstrated. An example of implicit learning is explaining and instructing someone to ride a bike (Sanders & Murray, 2018). One can tell someone how to ride

by instructing them to pedal quickly while balancing on the bike. However, they will not truly understand until someone works to perform the task and feels it is like to balance and ride a bike, they will not truly understand (Sanders & Murray, 2018). Riding a bike is learned implicitly, such as typing on a computer keyboard, driving, performing a dance routine, or swinging a golf club (Augusto, 2010; Reference.com, 2019; Sanders & Murray, 2018; Sarabandi, 2017). Implicit learning has led to enhanced coping mechanisms, management of fatigue and psychological distress, and long-term skill retention (Gabbett & Masters, 2011).

Sanders and Murray (2018) hypothesized that implicit self-defense instruction would lead to higher skill acquisition and retention, more significant positive affect, and subjective well-being. The researchers maintained that implicit instruction would increase SD self-efficacy and decrease. To determine the benefits of implicit versus explicit SD instruction, the researchers conducted a six-week self-defense program consisting of 30-participants, with a mean age of 66.1. Participants were randomly assigned to two groups, the implicit group (n = 15) or an explicit group (n = 15). Both groups met twice a week over six weeks and engaged in self-defense training for 30-minutes each session. The self-defense curriculum and testing procedures for both groups were the same. The only difference was how the SD instruction was provided, implicitly or explicitly. The self-defense instruction for the implicit group included physical demonstration of techniques, analogies, and cue words to guide the training process. The researchers refrained from using technical terms to describe the SD techniques. The explicit group received specific instructions and rules for performing the SD skills while receiving SD instruction. Both groups were measured across three different time points: pre-instruction (Time 1), mid-instruction (Time 2), and post-instruction (Time 3). Participants of both groups were

measured on self-defense self-efficacy, positive and negative affect, subjective wellbeing, and skill retention.

A total of four instruments were used to measure participants. Self-defense self-efficacy (SD SE) was measured using a sub-scale derived from the Perceived Self-Efficacy Instrument developed by Ozer and Bandura (1990). The instrument consists of three subscales measuring interpersonal SE, activities SE, and SD SE. The SD self-efficacy scale contains 12-items with three to eleven sub-items rated on a 10-point Likert Scale. The SD SE scale evaluated the participant's efficacy beliefs by performing various self-defense skills in response to varying self-defense situations. The Positive Affect Negative Affect Scale-X (PANAS-X) measured any positive and negative affect changes over time. The PANAS-X consists of 60-items rated on a 4-point Likert Scale and is an expanded version of the PANAS developed by Watson and Clark (1994). The researchers used two subjective well-being scales to measure any subjective well-being changes over time. The first was the Personal Well-being Index-Adult (PWI-A), an instrument used to assess an individual's quality of life based on their perceived wellbeing and personal safety. The PWI-A has 7-items rated on an 11-point Likert scale. The other well-being scale used was the Subjective Vitality (SV) scale, containing 7-items, rated on a 6-point Likert scale. The SV evaluated the participant's subjective wellbeing, alertness, and overall vitality. Each of the four measures was given at each time point: pre, mid, and post-intervention.

Participants also completed a demographic questionnaire pre-intervention (Time 1) to gain basic information (e.g., race, gender, age, previous self-defense training). The participant's skill improvement was also measured using a skills test at two different time points; mid-intervention (Time 2) and post-intervention (Time 3). The skills tests were the same for both groups (i.e., implicit SD group and explicit SD group), measuring a participant’s speed,

accuracy, and efficiency of skills learned. Each skills test consisted of a practice phase followed by the test phase. During the practice phase, participants reviewed the self-defense skills being tested. In the testing phase, participants were asked to complete a series of skills (i.e., basic kick, basic punch, basic block) or a combo of skills (i.e., basic block and punch, basic punch and kick) reviewed in the practice phase. Participants had 10-seconds to demonstrate the skill(s) being tested. The series of skills or combo of skills was evaluated when it came to executing the skill(s) (e.g., speed, accuracy, and efficiency). Speed was measured in seconds, and a higher recorded time indicated slower performance, while a shorter recorded time indicated better performance. Accuracy and efficiency were rated on a 4-point Likert scale, and a higher score indicated better performance on both measures. Again, participants were provided a skills test at 3-weeks into the self-defense program (e.g., mid-intervention or Time 2) and at the end of the six-week self-defense program (e.g., post-intervention or Time 3). The purpose of providing the skills tests was to measure any change over time in the participant's progress in learning self-defense skills. Two different types of self-defense skills were assessed: *Common* self-defense skills and *Uncommon* self-defense skills. Common self-defense skills were identified as the basic skills learned (e.g., basic blocking or punching, basic combo techniques of blocking and punching). Uncommon self-defense skills involved more advanced techniques (e.g., elbows strikes, knee strikes, grab defense, choke defense, advanced combo techniques).

The researchers used a 2 (Group) by 2 (Time) repeated measures of ANOVA to analyze any changes over time in the participant's speed, accuracy, and efficiency of common self-defense skills and uncommon self-defense skills. A 2 (Group) by 3 (Time) repeated measures of ANOVA were used to analyze changes in the participant's self-efficacy, affect, and subjective wellbeing. A post hoc test was conducted to determine any significance between the three-time

points for each variable. Lastly, exploratory and descriptive analyses were conducted on the demographic data to overview the study participants. The results of the 2 x 2 repeated measures of ANOVA showed that the implicit group demonstrated higher speed and accuracy on common self-defense skills.

In contrast, the explicit group demonstrated greater efficiency in performing common self-defense skills. The 2 x 2 repeated measures of ANOVA revealed that the implicit group reported higher speed and accuracy for uncommon self-defense skills, and the explicit group demonstrated better efficiency. Both groups increased SD SE on self-defense self-efficacy, with the implicit group showing a slightly higher increase than the explicit group. The results also found that both groups reported a rise in personal and subjective well-being from pre to post-intervention. No statistically significant changes were found for positive affect or negative affect.

Sanders and Murray (2018) concluded that self-defense training could be used to raise a person's perceived self-efficacy (e.g., self-defense self-efficacy) and subjective wellbeing. The researchers also noted that an implicit self-defense training environment led to greater performance of the skills on speed and accuracy. In contrast, an explicit training environment resulted in better skill efficiency. The researchers proposed an implicit environment that reduced cognitive distractions and the potential of overthinking, which led to higher speed and accuracy. Conversely, an explicit environment focusing on rules and regulations led to greater skill efficiency. Sanders and Murray (2018) proposed that further research was needed to fully determine the benefits of providing self-defense training implicitly on identified variables, such as perceived self-efficacy. Building upon this study and the literature reviewed, the final discussion of the review will focus on the critical literature on the benefits of an augmented approach to addressing fear of crime among older adults.

Augmented Approach to Addressing Fear of Crime in Older Adults

Even though older adults are less likely to be the victims of a crime, this age group reports a higher fear of crime than any other age group (Hale, 1996; Akers et al., 1987; Rader, 2017). Despite the disconnect between an older adult's perception of crime and actual victimization, the long-lasting effects of fear of crime on this age group cannot be overlooked. The mental, emotional, and psychological impact of fear of crime can be long-lasting and irreversible (Kim & Kang, 2017; Kruger et al., 2007; Lane et al., 2014; Macassa et al., 2017; May et al., 2009; Razijn et al., 2008; Rader, 2010). As discussed, psychotherapy or counseling and self-defense training are two methods used to address a person's fear of crime. These two modalities are often viewed as separate approaches to tackling the same issue. However, some research suggests augmenting counseling with a complementary approach, such as self-defense training, which can be beneficial to combating an individual's fear of crime. The first study to be discussed is by David, Cotton, Simpson, and Weitlauf (2004), who found that survivors of a sexual assault may prefer an augmented approach to treatment.

Augmenting Group Counseling with Self-Defense Training

Survivors' Interest in an Augmented Approach

David, Cotton, Simpson, and Weitlauf (2004) note that feelings of safety often connect to one's desire to protect oneself if confronted by a threatening situation. Engaging in self-defense or personal safety training empowers individuals to maintain their overall safety (David et al., 2006; Ozer & Bandura, 1990; Weitlauf et al., 2001). A sufficient body of research supports personal safety/self-defense (PS/SD) as an effective intervention (e.g., Brecklin, 2008; David et al., 2006; Hollander, 2010; Ozer & Bandura, 1990; Sanders & Murray, 2018; Weitlauf et al., 2001). Based on previous literature findings, David et al. (2004) seek to evaluate perceptions of

vulnerability coupled with the interest in engaging in personal safety/self-defense (PS/SD). Moreover, the researchers sought additional insight into the readiness, goals, and expectations for engaging in such training. A total of 67-female US military veterans, predominately White and between the ages of 18 to 60 years old, were recruited. All participants engaged in outpatient mental health services at a rural VA hospital and were diagnosed with Posttraumatic Stress Disorder (PTSD) linked to sexual or physical trauma.

The researchers used an original survey instrument to gain insight into the participant's perception of SD/PS training. The survey created for this study was a 22-item questionnaire to assess feelings of vulnerability to re-victimization, agoraphobic behaviors, and any interest or desire to engage in the PS/SD training. The first sixteen items within the survey assessed the participant's perceived fear and risk related to feelings of vulnerability and agoraphobic behaviors. The remaining six items gained information about the participant's desires and concerns for engaging in SD/PS and necessary demographic information. The survey did not assess history with PS/SD or if the participants had any training in PS/SD but instead focused on the participant's perceptions. The original survey was provided to participants over four weeks, from which the resulting data was collected. The results of the surveys noted several findings.

The first notable findings were that all participants reported being survivors of a physical attack or sexual assault, with 86% reporting the assault occurring while on active duty. On the fear variable, 76.1% of the participants reported moderate to extreme feelings of fear about a future assault or attack. 74.6% felt they were at moderate to high risk of experiencing an assault, with 50% reportedly afraid to go to sleep at night out of fear of assault or attack. Only one out of the 67 participants reported not fearing for their safety. In contrast, 22.4% reported being afraid

for their safety, regardless of the situation. The majority of the participants reported their fear for their safety, moderately to minimal engagement in desired activities.

Some of the day-to-day activities associated with the participant's fear for personal safety were 'going out alone after dark (86.9%),' 'being in crowds (71.6%),' 'going for walks (56.7%),' and 'getting into (their) car (41.8%).' The researchers noted several findings regarding past PS experience and current weapon use. Over 40% of participants stated that they had engaged in previous PS/SD training, either in a brief workshop (11.9%) or a one or two-day seminar (14.9%). While only 43.3% reported owning a weapon for SD and 20% stated they always carried their weapon with them. Some of the weapons they reported owning were a knife (7.5%), pepper spray or mace (6.0%), a gun (6.0%), or a trained attack dog (1.5%). Regarding their beliefs about engaging in PS/SD, 85% of the participants indicated such training would increase their personal feeling of safety. Components of the PS/SD participants reported beneficial were physical self-defense (86.6%) and boundary setting (64.2%). Participants also found the awareness and intuition training (62.7%), assertiveness training (61.2%), and verbal de-escalation (52.2%) beneficial. Some of the benefits noted from engaging in PS/SD were a decrease in feelings of fear (42%), increased self-confidence and self-esteem (41%), and less agoraphobic behaviors (12%).

David, Cotton, Simpson, & Weitlauf (2004) concluded that participants strongly endorsed engaging in PS/SD as sexual or physical assault survivors. The researchers further proposed that PS/SD training would complement treatment with traditional mental health treatment. The researchers proposed combining the mental health approach with PS/SD for those dealing with symptoms of PTSD due to a past sexual or physical assault. In a follow-up study by David, Simpson, and Cotton (2006), the researchers examined the benefits of augmenting mental

health treatment with PS/SD. The following discussion evaluates the findings by David et al. (2006) and other studies noting the benefits of an augmented approach.

Fundamental Research Supporting an Augmented Approach

Presently, very little research has been done to examine the effects of augmenting a counseling intervention with self-defense training. One of the few studies to evaluate the appropriateness of combining traditional treatment approaches (e.g., individual counseling, group counseling) with a complementary method (i.e., self-defense training) was conducted by David et al. (2006). Identified as a pilot project and follow-up study, David, Cotton, and Simpson (2006) examined the effects of a comprehensive psychoeducation and personal safety/self-defense training program. The study aimed to determine if a self-defense training program could be combined with therapy as a practical treatment for survivors or those fearful of physical and sexual assault.

The participants were 12-female US military veterans, with a mean age of 48.3. All of the participants were diagnosed with Posttraumatic Stress Disorder (PTSD) or depression due to a military-related physical or sexual assault. The intervention had the 12-participants engage in a 36-hour (12-weeks) behavioral intervention titled *Taking Charge* (TC). The TC program was divided into 3-hour group sessions: psychoeducation, self-defense training, and group debriefing. The first hour or part provided psychoeducation information on sexual assault, assertive communication, boundary setting, and participants' practice of the discussed skills. The second hour included the physical self-defense training, and the final hour allowed participants to process what had been discussed or learned during the 3-hour session.

Throughout the study, participants were assessed at five different times. First, at one month before the first group session (Baseline 1), immediately at the first group session

(Baseline 2), at the final group session (Posttest 1), 3-months after the final session (Posttest 2), and 6-months after the final session (Posttest 3). The study aimed to measure changes in the participant's perceived self-efficacy, perception of aggression, and PTSD and depression symptoms. The study used five different questionnaires to measure the change in the identified variables. Self-efficacy was tested using two other questionnaires. The first was a Generalized Self-Efficacy (GSE) scale developed by Schwarzer and Jerusalem (1995) that consisted of 10-items rated on a 4-point Likert scale. The GSE scale assesses the perceived ability to deal with and manage challenging situations. The second self-efficacy scale developed by Ozer & Bandura (1990) was the Perceived Self-Efficacy Scale (PSES). The PSES consisted of 37-items rated on an 11-point Likert scale. The instrument has been previously discussed in detail. The PSES assessed self-efficacy across three different indices (e.g., self-defense self-efficacy, activities self-efficacy, and interpersonal self-efficacy) (David et al., 2006; Sanders & Murray, 2018).

Aggression was assessed using the Aggression Questionnaire consisting of 29-items, rated on a 5-point Likert scale. The questionnaire evaluates the participant's comfort level with engaging in physical and verbal aggression and feelings of anger and hostility. Participants were also assessed for current depression symptoms using the Beck Depression Inventory, a 21-item instrument. Any changes in the participant's symptoms of PTSD were assessed using the PTSD Checklist-Civilian (PCL-C), a 17-item questionnaire rated on a 4-point Likert scale. The researchers highlighted that the PCL-C uses the DSM-IV criteria for diagnosing PTSD. Lastly, the study asked each participant to complete a 9-item demographic survey. Again, all measures were provided at five different time points, except for the demographic survey, which was given only at baseline 1.

A within-subjects paired t-tests analysis was used to determine any significant differences between Baseline 1 & Baseline 2 and the three different Posttests. The results of the paired t-test analysis revealed no significant difference between baseline one and baseline two. The analysis also showed no statistically significant changes in general self-efficacy from baseline to post-test 3. However, for self-efficacy (i.e., activities, interpersonal, and self-defense self-efficacy), the researchers noted statistically significant changes from baseline to the 6-month follow-up. The results indicated participants' efficacy beliefs towards using physical self-defense techniques, engaging in community activities, and significantly increasing their interpersonal skills.

No statistically significant change was found concerning risk perception regarding the risk of assault. However, participants reported feeling less afraid of being physically or sexually assaulted at the first posttest (Posttest 1). The findings at posttest one were not maintained at the 3-month (Posttest 2) or 6-month (Posttest 3) follow-ups. The researchers also noted a statistically significant change in risk perception regarding better discernment of risky versus safe situations. The difference in risk perception for participants was maintained from baseline to the 3-month follow-up.

Regarding psychiatric indicators, although the severity of PTSD symptoms was not wholly reduced at posttest, the researchers noted a reduction of symptoms at the .05 level. The participants did experience enough of a statistically significant decrease in PTSD symptoms, from baseline to 3-months and again at the 6-month follow-up, making the results notable. Additionally, upon closer examination of the PCL-C, researchers examined the re-experience of symptoms, avoidance symptoms, and hyper-arousal symptoms. Upon analysis of the PCL-C, researchers noted no change in re-experience of symptoms at posttest. In contrast, a statistically

significant reduction in avoidance behaviors, hyper-arousal symptoms, and symptoms of depression was found from baseline to the 6-month follow-up.

Based on these findings, the researchers concluded a combined treatment approach was effective in lessening symptoms of PTSD along with fear and worry of assault and increasing awareness of risky situations. The researchers also determined that a combined intervention effectively reduced symptoms of depression and avoidant behaviors while successfully increasing a person's efficacy beliefs towards successfully attending to life-threatening situations. David, Simpson, and Cotton (2006) further noted a reciprocal effect between reducing depression and avoidant symptoms and increasing self-defense and interpersonal self-efficacy. The researchers contend PS/SD training, as an action-based intervention, is much like exposure therapy. The training structure allows survivors to respond to life-threatening situations as they see fit. PS/SD training combined with a psychoeducation approach is a viable intervention for addressing specific symptoms (e.g., avoidant behaviors, depression, and anxiety) associated with sexual, physical assault, or fear of assault.

Benefits of an Augmented Approach

In a research study by Rosenblum and Taska (2014), the benefits of a self-defense curriculum used with a psychoeducation intervention were examined. The researchers liken self-defense training to physical or body-based therapy (e.g., yoga, drama, dance) to address body-related trauma (e.g., sexual assault, physical assault). Self-defense is then viewed as an appropriate treatment method due to its unique benefits for survivors of violence (e.g., self-protection skills, increased efficacy beliefs, decreased fear, and anxiety over future experiences). In the article, the authors describe a 16 to 20-hour program called Impact™ Basics that uses both psychoeducation and PS/SD to address the needs of survivors. The program is designed to occur

weekly, for 4 to 5-hours per session. It includes various instructors (e.g., one female lead instructor, two male instructors for physical demonstration, and one therapist). The therapist was an assistant instructor who provided therapeutic support to participants and modeled desired behaviors or actions. The therapist also attended to the participant's reaction if triggered by helping the individual-ground and stabilize.

Rosenblum and Taska (2014) highlight the benefits of a combined approach by noting that a PS/SD and psychoeducation intervention can increase perceived self-worth, build body awareness, and reduce feelings of shame and self-blame associated with the assault. The authors also contend that this type of intervention helps survivors respond more quickly, both verbally and physically, when faced with a dangerous situation. Moreover, engaging in an augmented approach provides participants with the skills to identify inaccurate cognition or unhelpful thoughts, feel less isolated, and be open to corrective social feedback (Fraser and Russell, 2000; Rosenblum and Taska, 2014). Applying PS or SD with a therapeutic intervention can assist a person in distress due to an unsafe situation, allowing them to experience improved motor response, affect tolerance, and reduce stigma. Additionally, an augmented or combined approach provides an environment of support that normalizes the use of PS/SD and promotes social connection. Other benefits of an augmented or combined approach to address the fear of violence or assisting survivors of assault are feelings of empowerment, increased belief in maintaining physical safety and wellbeing successfully, increased control and assertiveness and improved boundary-setting abilities. The researchers conclude that self-defense training can be a beneficial treatment method used in conjunction with therapy to counter mental health symptoms (i.e., depression, anxiety, or fear of harm) associated with a past assault or fear of assault. The authors contend that further research is needed to evaluate the benefits of an augmented approach.

Chapter Summary

In conclusion, fear of crime can be heightened directly or indirectly by witnessing, hearing, viewing, or being a crime survivor. Even though being a victim of a violent crime is seldom, an individual's perception of crime can significantly affect their feelings of fear. Due to the impact of perception on one's emotions, providing treatment to individuals fearful of crime can be difficult for most professionals. Finding effective methods that change an individual's perceived fear of crime physically, mentally, and emotionally is vital, especially in older adults. Research on fear of crime expressed by older adults suggests an incongruency between what's reported versus what is experienced by this age group. Despite the relatively low victimization rates among this age group, older adults report a higher fear of crime than others (Akers et al., 1987; Hale, 1996; Rader, 2017). The effects of fear of crime on older adults can lead to physical decline, mental distress, and a negative emotional impact (Kim & Kang, 2017; Kruger et al., 2007; Lane et al., 2014; Macassa et al., 2017; May et al., 2009; Rader, 2010; Ranzijn et al., 2008). The effects of fear of crime can have a reciprocal impact, affecting a person's behaviors, thoughts, and actions (Rader et al., 2007; Rader, 2010). Social cognitive theorists consider the influence of personal, environmental, and behavioral factor's on a person's thoughts, emotions, and actions (Bandura, 1986; Bandura, 1990; Bandura, 2004; Pujari's, 2002). Altering the dynamic interplay of these factors can positively change an individual's fear of crime. Raising a person's perceived self-efficacy regarding their ability to deal with a threatening situation successfully is key.

Effective treatment modalities to increase self-efficacy and counter fear of crime are vital for vulnerable populations, like older adults. The literature supports using two such methods for countering fear of crime: psychoeducation group counseling and self-defense training (American

Psychological Association, 2019; Clapp & Beck, 2012; Guay et al., 2018; Jordan & Mossman, 2019; Regehr et al., 2013; Rosenblum & Taska, 2014; Thompson, 2014). The present study evaluates the benefits of augmenting psychoeducation group counseling with self-defense training through a social cognitive perspective. Thus, raising the perceived self-efficacy through an augmented intervention will reduce the older person's fear of crime.

CHAPTER III: METHODS

Introduction

The purpose of the current study was to examine the influence of an augmented psychoeducation group counseling and self-defense training program on the perceived self-efficacy of older adults. The following chapter discusses the research methods and procedures implemented in this study, including a description of the sampling design, the participants, and the recruitment methods. The chapter also provides an overview of the research design and procedures, instrumentation, and data analysis methods, concluding with a chapter summary.

Research Questions

The present study sought to answer four research questions. The research questions evaluated the effects of an augmented psychoeducation group counseling and self-defense program on self-efficacy and fear of crime compared to a psychoeducation counseling-only group. The following are the study's research questions.

***Research question 1*:** Does participation in an augmented psychoeducation group counseling and self-defense training program differ from an only psychoeducation group counseling on a person's perceived self-efficacy?

***Research question 2*:** Does participation in an augmented psychoeducation group counseling and self-defense training program differ from an only psychoeducation group counseling on a person's fear of crime?

***Research question 3*:** For an augmented psychoeducation group counseling and self-defense training approach, what is the relationship between self-efficacy and a person's fear of crime?

***Research question 4*:** For a psychoeducation group counseling only approach, what is the relationship between self-efficacy and a person's fear of crime?

Design and Procedures

Participants

The Rationale of the Study Population

The present study evaluated perceived self-efficacy and fear of crime among older adults. The standard definition of an older adult is someone whose 65 years of age and older. For the present study, the age inclusion was extended to seniors or older adults 55 years of age and older. Lowering the age requirement was appropriate for the present study. In the United States, 55 years of age and older is seen as the age of entry into older adulthood or aging demographics (Seniorliving.org, 2020). Therefore, lowering the age requirement allowed the present study to reach more participants within that aging demographic.

The purpose of studying this age group was three-fold. First, evaluate fear of crime and perceived risk of victimization among older adults and see if the findings correlate with other studies on fear of crime amongst this age group. Secondly, determine whether an augmented counseling method (i.e., an augmented psychoeducation group counseling and self-defense training program) can reduce fear of crime for this older age group compared to a non-augmented approach (i.e., psychoeducation group counseling only method). Lastly, to determine if raising the perceived self-efficacy of this age group ameliorates fear of crime among older adults.

Determination of Sample Size

A power analysis was conducted with G*Power to determine the sample size (Faul et al., 2007). Using a moderate effect size of .05 at 80% power and an alpha of .05, a sample size of 15

per group (N = 30) was sufficient to determine a significant difference (Boustani, 2014; Courtney, 2012; Musson, 2016). The sample size determined by the power analysis corresponds with previous research on self-defense and psychoeducation group counseling (Sanders & Murray, 2018; Vaselakos, 1999; Witte et al., 2014). Additionally, previous studies examining the effectiveness of group counseling or a self-defense training program in increasing self-efficacy in adults reported an effect size of .50 at 80% power, using an alpha of .05 (Boustani, 2014; Courtney, 2012; Musson, 2016). Now, a discussion on the study's research design will be provided.

Demographic Characteristics of the Study Participants

Over 155 organizations (i.e., Older Adult Service Organizations, Councils on Aging, Senior Centers, Health Aging and Senior Resource Centers, Parks and Recreation Centers, Wellness Centers, University-based Aging or Gerontology Programs, Hospital-based Aging Services, and other organizations) across the state of North Carolina were shared the online recruitment link and material. Additionally, dozens of flyers and handouts were posted around public locations throughout Eastern North Carolina, in counties like Wake County and Pitt County, and online (i.e., on Social Media Platforms, Online Newsletters, and Messenger Platforms). A total of132 individuals accessed the online recruitment link offered through Qualtrics and had viewed the study description. Of the 132 who accessed and viewed the study link, a total of 60 older adults signed up to participate. In addition, of the organizations contacted, four senior centers (i.e., Stanley County Seniors Services, Martin County Senior Center, Wayne County's Peggy Seegars' Center, and the Wilson County Senior Center) from across North Carolina had members sign-up to participate.

Of the sixty older adults who signed up to participate in the study, 34 older adults met the inclusion criteria and completed the six-week study. For those who did not participate (n = 26), some of the reasons were the following: not meeting the inclusion criteria, not passing the PARQ+, not returning email correspondence or communicating after signing up, declining to participate, ongoing health issues, dropping out of the group sessions, or missing more than two sessions and failing to participate in any makeup session. The following is an overview of the participants who engaged in the study.

Descriptive statistics analysis. Thirty-four (N = 34) older adult participants with a mean age of 68.21 years (SD = 7.29), ranging from 55 to 83 years, participated in the study. Of those who participated, over half (n = 19) did so through their local senior center. An analysis of the demographic data found the majority of the participants reported being retired (n = 28, 82.4%), female (n = 32, 94.1%), married (n = 16, 47.1%) or widowed (n = 13, 38.2%), and Black/African American (n = 17, 50.0%) or White (n = 16, 47.1%) respectively. The highest level of education reported was one to three years of Community College/Trade School (n = 7, 20.6%) or a College/University degree (n = 7, 20.6%), respectively. Evaluation of the participant's work history, participants worked on average 21 years before retirement. Additionally, regarding their previous occupation, most reported working in the healthcare field (i.e., RN, CAN, Nutrition; n = 5, 14.7%), retail or retail sales (n = 5, 14.7%), and education (n = 4, 11.8%). Only 11 (32.4%) participants stated they were currently working, with many working in the healthcare field (n = 4, 11.8%). Of those, seven said they worked full-time, and three worked part-time, on average at least 3 hours a week. Most participants stated that if they do work, even after retirement, it is on a volunteer basis (n = 20, 58.8%). The average number of years working in their current occupation was five years. All the participants (N = 34) reported

being comfortable discussing various safety topics, unsafe or threatening situations, and violent or non-violent crime. Table 1 details the demographic information for the total participants and each group (i.e., treatment and comparison group). Participants' prior experience with counseling and self-defense training was also evaluated.

Participants' experience with counseling. Regarding the participant's experience with counseling, the majority (n = 21, 61.8%) reported no previous experience with engaging in counseling. Of the 13 with prior experience with counseling, most (n = 9, 26.5%) had been involved in individual counseling or engaged in more than one type (i.e., some group counseling, family counseling, marriage counseling; n = 3, 8.8%). Those who engaged in some form of counseling reported the amount of time as one to four months (n = 4, 11.8%) or one to three years (n = 4, 11.8%), respectively. The participants who engaged in counseling for one to three years were not excluded because the counseling did not include experience with group counseling.

Participants' experience with self-defense. In an evaluation of the participant's experience with self-defense training, the majority (n = 27, 79.4%) reported no experience of engaging in self-defense. Of the remaining seven (20.6%) participants who have engaged in self-defense training, four had taken an introductory self-defense class more than five years ago for less than six weeks. Only one participant had U.S. military hand-to-hand combat training, but the training was over 55 years ago. Due to the lapse in time (i.e., greater than five years) with these participants' past experience with self-defense training, they were not excluded from the study. Participants also provided insight into technology access and ease of use.

Technology access and ease of use. The demographic data examined participants' access to specific technology and ease of use regarding technology. All the participants reported

being comfortable accessing and using technology to engage in the study. Participant's reported having access to reliable Wi-Fi (n = 29, 85.3%), a computer (n = 20, 58.8%), laptop (n = 23, 67.6%), and iPad or tablet (n = 13, 38.2%) for video conferencing and engaging in the study virtually/remotely. Participants also reported having access to a smartphone (n = 25, 73.5%) and a reliable email address (n = 28, 82.4%). Those who reported a lack of access to reliable Wi-Fi or computer, laptop, or iPad/tablet participated with others at a senior center location where technology was provided. See Table 1 for an overview of the participant's demographic information. A breakdown of the demographic data by group (i.e., treatment group versus comparison group) will now be provided.

Descriptive Statistics for the Treatment Group

Treatment group's demographic results. A total of 17 participants were randomly assigned to the treatment group, ranging from 56 to 83 years old. The mean age of the treatment group was 67.65 years (SD = 7.50). All of the treatment group participants were female (n = 17) and respectively both Black/African American (n = 8, 47.1%) and White (n = 8, 47.1%). The majority were also married (n = 9, 52.9%) and retired (n = 11, 88.2%) with a High School diploma (n = 5, 28.4%) or College/University degree (n = 5, 28.4%) respectively. Regarding previous work history and occupation, most worked in the education field (i.e., teacher, teacher's assistant, educator; n = 4, 23.5%), retail/retail sales (n = 3, 17.6%), or the human service field (n = 2, 11.8%). The number of years in the previous occupation ranged from ten (11.8%) to 30 (17.6%) years. Only three (17.6%) reported they were currently working. Those currently working stated they had worked between three (5.9%) to 22 years (5.9%) in their current occupation, ranging from nutrition and the human service field to program manager. Regarding the number of hours being worked, two participants reported working full-time (11.8%) and two

part-time (11.8%). The majority of the participants stated they worked only on a volunteer basis (n = 12, 70.6%) based on their retirement. All participants (n = 17) reported being comfortable discussing and processing various safety topics, unsafe or threatening situations, and experiences of violent or non-violent crimes (See Table 1).

Treatment group's experience with counseling and self-defense. ***Counseling experience.*** Of the seventeen participants in the treatment group, the majority (n = 11, 64.7%) had no counseling experience. Of those participants with counseling experience, three had participated in individual counseling, and two in more than one type (i.e., some group counseling). One participant reported 'other' as the type of counseling but did not specify. The length of the counseling experience for most was 1-3 months (n = 4, 23.5%) to 6-12 months (n = 1, 5.9%). Only one participant stated 'other' for the length of experience with counseling but did not specify the length.

Self-defense experience. Additionally, three participants (17.6%) stated they had some form of experience with self-defense training. Two participants reported less than two weeks of basic self-defense training, while one reported some on-the-job de-escalation training experienced when working. Participants who reported counseling and self-defense experience were not excluded from the study because none had extensive training or experience with counseling or self-defense.

Treatment group's technology access and ease of use. As for access and ease of use with technology, all of the treatment group participants reported being comfortable using technology to engage in the study. Additionally, most (n = 12, 70.6%) reported having access to reliable Wi-Fi, the use of computer (n = 11, 64.7%), the use of a laptop (n = 10, 58.8%), a smartphone (n = 12, 70.6%), and an email address (n = 11, 64.7%). Only seven of the treatment

group participants stated they had reliable access to an iPad or tablet. See Table 1 for the demographic details on counseling and self-defense experience and technology access.

Descriptive Statistics for the Comparison Group

Comparison group's demographic results. Similar to the treatment group, seventeen individuals were randomly assigned to the comparison group, ranging from 56 to 83 years old. The mean age of the group was 68.76 (*SD* = 7.26) years of age, female (*n* = 15, 88.2%), widowed (*n* = 7, 41.2%) or married (*n* = 7, 41.2%)), and Black/African American (*n* = 9, 52.9%) or White (*n* = 8, 47.1%), respectively. Most of the comparison group participants reported a wide range of education, from 1 to 3 years of Community College/Trade School (*n* = 4, 23.5%) to a master's degree (*n* = 3, 17.6%) or a Ph.D. (*n* = 3, 17.6%). Most of the participants were retired (*n* = 13, 76.5%) and worked for at least ten years in their prior profession. The top prior occupations reported were healthcare (*n* = 4, 23.5%), or retail sales (*n* = 2, 11.8%). Only five did not report any previous occupation. Of those who reported currently working (*n* = 8, 47.1%), whether retired or not, three (17.6%) reported working primarily in the healthcare field with a minimum of three years in their present occupation. Five participants reported working full-time (29.4%), regardless of retirement. Most participants (47.1%) reported working on a volunteer basis. All treatment group participants reported being comfortable discussing safety topics, unsafe or threatening situations, or violent and non-violent crimes. See Table 1 for the comparison group's demographic details.

Comparison group's experience with counseling and self-defense. ***Counseling experience.*** In evaluating the comparison group's counseling experience, the majority (n = 10, 58.8%) reported no experience with counseling of any kind. Of those with counseling experience, four (23.5%) reported individual counseling experience, and three (17.6%) reported

more than one type (i.e., some group counseling and family or marriage therapy). Those with individual group counseling experience (n = 4) reported a length of 1 to three years (23.5%) engaging in the counseling. The rest reported between 6-weeks to 6-12 months of engaging in some form of counseling.

Self-defense experience. Most of the comparison group participants (n = 13, 76.5%) had no self-defense training experience. Only four (23.5%) reported some form of experience with self-defense (i.e., basic self-defense or a kickboxing course). The length of the self-defense training experience ranged from less than six weeks to 1 to 3 months. Only one reported having some hand-to-hand combat experience for a minimum of three years over fifty-five years ago. Even though these participants reported some experience with counseling and self-defense, none were excluded from the study. The justification was that these participants had not engaged in counseling or self-defense training for years before participating in the study. Therefore, their prior experience would not have influenced or skewed their view of the present study.

Comparison group's technology access and ease of use. All comparison group participants stated they were comfortable accessing and using technology to participate in the study. All the participants reported having reliable Wi-Fi and an email address of the technology assessed. Only have had access to a computer (n = 9, 52.9%), with the majority having access to a laptop (n = 13, 76.5%) and smartphone (n = 13, 76.5%). Less than half of the participants had access to an iPad or Tablet (n = 6, 35.3%). The results of the data collected from both groups linked to the research questions are provided. See Table 1 for the comparison group's demographic details on counseling and self-defense experience and technology access.

Table 1

Demographic Data Frequencies for the Total Sample and Each Group

	Treatment Group (n =17)		Comparison Group (n = 17)		Total Sample (N =34)	
Demographic Variable	n	%	n	%	n	%
Age ($M \pm SD$)	67.65 ± 7.50		68.76 ± 7.26		68.21 ± 7.29	
Gender						
Female	17	100%	15	88.2%	32	94.1%
Male	0	0%	2	11.8%	2	5.9%
Race						
American Indian	1	5.9%	0	0%	1	2.9%
Black/African American	8	47.1%	9	52.9%	17	50.0%
White	8	47.1%	8	41.1%	16	47.1%
Marital status						
Married	9	52.9%	7	41.2%	16	47.1%
Widowed	6	35.3%	7	41.2%	13	38.2%
Divorced	1	5.9%	2	11.8%	3	8.8%
Separated	0	0%	1	5.9%	1	2.9%
Never married	1	5.9%	0	0%	1	2.9%
Education level						
9th grade/Junior High	0	0%	1	5.9%	1	2.9%
High School Diploma	5	29.4%	1	5.9%	6	17.6%
1-3 Yrs. Community College/Trade School	3	17.6%	4	23.5%	7	20.6%
Community College/ Trade School	0	0%	1	5.9%	2	5.9%
1-3 Yrs. of College	0	0%	2	11.8%	2	5.9%
College degree	5	29.4%	2	11.8%	7	20.6%
Master's degree	3	17.6%	3	17.6%	6	17.6%
Ph.D./M.D./or Equiv.	0	0%	3	17.6%	3	8.8%
Working status						
Retired	15	88.2%	13	76.5%	28	82.4%

Not retired	2	11.8%	4	23.5%	6	17.6%
Previous occupation						
Office Admin. Asst./ Executive. Asst.	1	5.9%	0	0%	1	2.9%
Business Owner/ Operator	1	5.9%	0	0%	1	2.9%
Data Processor	1	5.9%	0	0%	1	2.9%
Dir./Manager/ Program Manager	1	5.9%	1	5.9%	2	5.9%
Education/ Teacher/ Teacher Asst./ Educator	4	23.5%	0	0%	0	0%
Engineer/ Domestic Engineer/ Construct.	1	5.9%	1	5.9%	2	5.9%
Food Distribution/ Cook	1	5.9%	1	5.9%	2	5.9%
Healthcare/ RN/ CNA/ Nutrition	1	5.9%	4	23.5%	5	14.7%
Homemaker	1	5.9%	0	0%	1	2.9%
Human Service Field	2	11.8%	0	0%	2	5.9%
Librarian/ Librarian Tech	0	0%	1	5.9%	1	2.9%
Public Affairs/ Public Relations	0	0%	1	5.9%	1	2.9%
Retail Sales/ Retail	3	17.6%	2	11.8%	5	14.7%
Transportation/ Trucking	0	0%	1	5.9%	1	2.9%
NA or did not answer	0	0%	5	29.4%	5	14.7%
Number of years in the previous occupation						
0 – 9 years	1	5.9%	5	29.4%	6	17.7%
10 – 20 years	7	41.3%	4	23.6%	11	32.3%
21 – 30 years	5	29.5%	3	17.7%	8	23.6%
31 - 40 years	3	17.7%	3	17.7%	6	17.7%
41 – 50 years	1	5.9%	2	11.8%	3	8.7%
Currently working						
Yes	3	17.6%	8	52.9%	11	32.4%
No	14	82.4%	9	47.1%	23	67.6%
If working, current occupation						
Office Admin. Asst./ Executive. Asst.	0	0%	1	5.9%	1	2.9%
Business Owner/ Operator	0	0%	1	5.9%	1	2.9%
Dir./Manager/ Program Manager	1	5.9%	1	5.9%	2	5.9%
Education/ Teacher/ Teacher Asst./ Educator	0	0%	1	5.9%	1	2.9%

Healthcare/ RN/ CAN Nutrition	1	5.9%	3	17.6%	4	11.8%
Human Service Field	1	5.9%	0	0%	1	2.9%
Rehabilitation Services	0	0%	1	5.9%	1	2.9%
Number of years in current occupation						
1 – 9 years	2	11.8%	3	17.7%	5	17.5%
10 – 20 years	2	11.8%	3	17.7%	5	14.5%
21 – 30 yeas	1	5.9%	2	11.8%	3	8.8%
Working hours						
Full-time	2	11.8%	5	29.4%	7	20.6%
Part-time	2	11.8%	1	5.9%	3	8.8%
As scheduled	1	5.9%	3	17.6%	4	11.8%
Volunteer basis	12	70.6%	8	47.1%	20	58.8%
Previous counseling						
Yes	6	35.3%	7	41.2%	13	38.2%
No	11	64.7%	10	58.8%	21	61.8%
Type of counseling						
Individual counseling only	5	29.4%	4	23.5%	9	26.5%
Group counseling only	0	0%	0	0%	0	0%
Other	1	5.9%	0	0%	1	2.9%
More than one type	0	0%	3	17.6%	3	8.8%
Number of years in counseling						
Less than 6-weeks	0	0%	1	5.9%	1	2.9%
1-3 months	4	23.5%	0	0%	4	11.8%
6-12 months	1	5.9%	2	11.8%	3	8.8%
1-3 years	0	0%	4	23.5%	4	11.8%
Other	1	5.9%	0	0%	1	2.9%
Comfortable discussing various safety topics						
Yes	17	100%	17	100%	34	100%
No	0	0%	0	0%	0	0%
Previous self-defense experience						
Yes	3	17.6%	4	23.5%	7	20.6%
No	14	82.4%	13	76.5%	27	79.4%
Type of self-defense training						
Basic self-defense class	2	11.8%	2	11.8%	4	11.8%
Kickboxing/fitness class	0	0%	1	5.9%	1	2.9%
Martial arts class	0	0%	0	0%	0	0%
Mixed martial arts	0	0%	0	0%	0	0%

Military hand-to-hand combat	0	0%	1	5.9%	1	2.9%
Reality-based self-defense program	0	0%	0	0%	0	0%
Other	1	5.9%	0	0%	1	2.9%
Number of years with self-defense training						
Less than 6-weeks	2	11.8%	2	11.8%	4	11.8%
1-3 months	0	0%	0	0%	0	0%
6-12 months	0	0%	1	5.9%	1	2.9%
1-3 years	0	0%	0	0%	0	0%
Other	1	5.9%	0	0%	1	2.9%
Comfortable discussing threatening or unsafe situations						
Yes	17	100%	17	100%	34	100%
No	0	0%	0	0%	0	0%
Comfortable discussing violent crime or non-violent crime						
Yes	17	100%	17	100%	34	100%
No	0	0%	0	0%	0	0%
Access to technology						
Reliable Wi-Fi	12	70.6%	17	100%	29	85.3%
Computer	11	64.7%	9	52.9%	20	58.5%
Laptop	10	58.8%	13	76.5%	23	67.6%
iPad/ Tablet	7	41.2%	6	35.3%	13	38.2%
Smart phone	12	70.6%	13	76.5%	25	73.5%
Email address	11	64.7%	17	100%	28	82.4%
Comfortable accessing and using technology						
Yes	17	100%	17	100%	34	100%
No	0	0%	0	0%	0	0%

Note: Table 1 provides the details of the demographic information for both the total sample, treatment group, and comparison group.

Research Design

Experimental Design of the Study

The following research employed an experimental design in the overall construct of the study. The experimental design used a two-group experimental design with participants being randomly assigned to either the treatment group (i.e., augmented group) or comparison group (i.e., non-augmented group) (Moore et al., 2009; Trochim, 2006). Random assignment of participants to one of the groups (i.e., treatment or comparison group) was done before participants engaged in the intervention (i.e., augmented psychoeducation group and self-defense training or psychoeducation group only). The paper's introduction (i.e., Chapter 1) discussed the threat to internal validity and how it might be controlled.

Treatment versus Comparison Group Design

The present study consisted of two groups: an augmented psychoeducation group counseling and self-defense group (i.e., treatment group) and a non-augmented or psychoeducation group counseling only group (i.e., comparison group). The augmented group (i.e., treatment group) was provided psychoeducation group counseling and self-defense training. Conversely, the non-augmented group (i.e., comparison group) was offered only the psychoeducation group counseling. Each group met once a week for 60-minutes, for a total of six sessions over six weeks. See Table 2 for the intervention information for the treatment versus the comparison group. A minimum of 30-participants (i.e., $n = 15$, treatment group and $n = 15$, comparison group) were recruited for the study and randomly assigned to each group (i.e., treatment group or comparison group). The following discussion provides more detailed information regarding the treatment group (i.e., augmented group) versus the comparison group (i.e., psychoeducation group counseling only group).

Table 2

Treatment Group versus Comparison Group

Group	Intervention Received
Treatment Group	Psychoeducation group counseling augmented with self-defense training. The first half of the session included group psychoeducation counseling. The second half of the session provided self-defense training. Each session was 60-minutes (30-minutes of psychoeducation group counseling and 30-minutes of self-defense training), occurring once a week for 6-weeks.
Comparison Group	Psychoeducation group counseling-only. The entire session included only the psychoeducational group counseling. Each session was 60-minutes, occurring once a week for 6-weeks.

Note: Table 2 provides an overview of the design of the treatment group and comparison groups' design.

The treatment group design: Augmented intervention. The treatment intervention augments psychoeducation group counseling with basic self-defense training. Participants in the treatment group were provided various psychoeducation 'safety' information and self-defense training in a group counseling setting. The psychoeducation safety information focused on personal safety, community safety, home safety, and other safety topics (i.e., mental and verbal safety, financial safety, and cyber safety). The basic self-defense training focused on skill acquisition of various self-defense techniques over six weeks (e.g., blocking a punch or knee strike, defensive striking, and grab defense). The older adult participants learned to apply the self-defense skill to real-life situations to protect themselves. Basic self-defense training was the primary difference between the two groups, with the comparison group receiving only the psychoeducation safety group counseling.

The treatment group (i.e., augmented or psychoeducation group counseling and self-defense group) met one hour a week for a total of six weeks or six sessions. The first 30-minutes of the session consisted of psychoeducation group counseling, with the final 30-minutes comprising the self-defense training. The study aimed to determine any change in participants engaging in the augmented intervention. Participants were measured on fear of crime, perceived risk of crime, and perceived self-efficacy, and how each is measured will be discussed later in the text. Additionally, the participant's self-defense skills (i.e., time in seconds to execute the skill, accuracy of performing the skill, and effectiveness of the demonstrated skill) were assessed. Any change over time in self-defense skill acquisition was measured at the beginning (Time 1) and again at the study's end (Time 2). Details of the self-defense training curriculum and the augmented treatment intervention have been within the procedures section.

The comparison group design: Psychoeducation group only. Unlike the treatment group (i.e., augmented group), the comparison group did not receive explicit self-defense training. Instead, the comparison group (i.e., psychoeducation group counseling only) simply received psychoeducation safety information. Any self-defense material (i.e., info on self-defense tools, practical self-defense techniques, or effective areas to strike) was presented during a designated session within the psychoeducation curriculum.

Like the treatment group, the comparison group (i.e., psychoeducation group counseling only group) met weekly, with each session lasting 60-minutes; for a total of six weeks. After completing the present study, participants would be offered the same self-defense training received by the treatment group. The purpose of providing the comparison group with the same self-defense is to ensure the study's design is fair for all who participate. Any self-defense training offered to the participants of the comparison group will occur during a psychoeducation

session or once the entirety of the study is over. The procedures section and appendix D provides details on the psychoeducation safety curriculum.

Similarities and differences of each group. Both groups were provided the same psychoeducation safety information each session over the six-week period. Motivational Interviewing and OARS techniques were also provided to both groups during the psychoeducation group sessions. Both the treatment (i.e., augmented group) and comparison group (non-augmented group) were measured on the same dependent variables (e.g., fear of crime, perceived risk of crime, and perceived self-efficacy). All the participants were assessed at the beginning (Time 1) and at the study's end (Time 2). Data collection among both groups was also similar. Pretest-posttest data was collected at each time point. Participants were required to complete the surveys/questionnaires assessing the dependent variables through *Qualtrics*. Information on *Qualtrics* will be provided in the data collection and analysis of the dissertation. The primary researcher of the present study was also responsible for providing the treatment and comparison group interventions. All aspects of the study were pre-approved by the University Internal Review Board (IRB) before the start of the study. A discussion on the rationale for the study's time frame (i.e., six weeks) will now be provided.

Other notable similarities were participants from both groups were primarily similar in age, gender, race, retired status, and self-reported access to technology (See *Demographic Characteristics for the Study Participants* for details). Both groups were also similar in their experience with counseling and self-defense. The majority of participants of the treatment group (i.e., augmented group) and comparison group (i.e., non-augmented group) had little to no experience with either treatment modality (i.e., counseling or self-defense training). The groups differed in aspects such as educational level, working status, and recruitment location. Regarding

educational status, the majority of the treatment group either had a high school diploma or college degree. The comparison group had 1-3 years of community college or trade school. Unlike the treatment group, three of the comparison group participants reported having a Ph.D., M.D., or equivalent educational level. As for working status, more participants in the comparison group reported ‘currently working’ and ‘not retired’ than those in the treatment group. Lastly, when it came to recruitment location, the majority of the treatment group participants came from senior centers or council on aging centers. Over fourteen of the seventeen treatment group participants were associated with a senior center. Only five of the seventeen comparison group participants were from senior centers or council on aging centers. These are a few similarities and differences shared by both groups that were notable. Lastly, the treatment group received self-defense training, whereas the comparison group did not.

The Rationale for a Six-Week Study

To meet the requirements outlined in the dissertation study, the study's time length is six weeks. The rationale for the six-week study is consistent with previous research conducted on self-defense and counseling (e.g., Azogh et al., 2018; Depp et al., 2015; Gumus et al., 2015; Senn et al., 2013; Sanders, 2014; Sanders & Murray, 2018; Vaselakos, 1999). In one such study, providing just two psychoeducation group sessions could lead to a statistically significant decrease in a participant's psychological distress, depression, and anxiety (Al-Sulaiman et al., 2018; Sanders, 2014; Sanders & Murray, 2018; Stump, 2013). Conversely, brief psychoeducation group sessions increased the participant’s subjective well-being and effectively decreased their fear of crime (Al-Sulaiman et al., 2018; Sanders, 2014; Sanders & Murray, 2018; Stump, 2013).

Some of the benefits of providing a short-term treatment approach, like psychoeducation counseling or self-defense, are the following: doing so can be cost-effective, can help promote and maintain retention, effective at reducing and targeting specific behaviors or symptoms, and encourage ongoing participant engagement (Abbass, 2003; Al-Sulaiman et al., 2018; Casanas et al., 2012; Juul et al., 2019; Trochim, 2006). The design of a six-week study can also be conducive to some psychoeducation group counseling programs (Azogh et al., 2018; Depp et al., 2015; Gumus et al., 2015). Therefore, since the present study was more counseling-focused and focused on analyzing the benefits of an augmented counseling approach, a six-week study was deemed appropriate, both in design and with the study's procedures.

Procedures

The study participants were recruited through various online platforms (i.e., social media, newsletters, counseling on aging or senior center websites) and communication methods (email, Facebook messenger, flyers). Recruitment information and general message emphasized the study's learning objective and inclusion criteria (i.e., 55 years of age and older, mentally and emotionally stable to discuss safety information, physically capable of engaging in self-defense, and the technology requirements). The inclusion criteria and a physical readiness questionnaire (i.e., Physical Activity Readiness Questionnaire for Everyone or PAR-Q+) were screened during the recruitment phase. These screening procedures were utilized to ensure participants met the criteria before participating in the study. Recruitment material provided a website link through Qaultrics for potential participants to submit contact information and access the screener documents. The following is a discussion of these procedures in more detail.

Recruitment Procedures, Inclusion Criteria, and Consent

In March 2020, a deadly virus caused by the SARS-CoV-2 virus, known as COVID-19, swept across the United States (Blake & Wadhwa, 2020; CDC, 2020; CDC, 2022). COVID-19 led the nation into an unprecedented pandemic triggering strict shelter-in-place and stay-at-home policies (Blake & Wadhwa, 2020; CDC, 2020; CDC, 2022). Those most vulnerable to the virus were the aging population, those 65 years of age, and older (Blake & Wadhwa, 2020; CDC, 2020; CDC, 2022). Due to the risk and vulnerability of the study population, an in-person study was deemed unsafe. Therefore, the study, as well as the recruiting measures, were conducted solely online.

Recruitment procedures. Thirty or more participants, 55 years of age and older, were to be recruited for the study through various online methods: social media platforms (i.e., Facebook, Instagram, Twitter), newsletters (i.e., Council on Aging newsletter, City of Greenville newsletter, Greenville Parks & Recreation, Senior Centers), email, and advertisements (i.e., handouts, flyers, handout) to various organizations (i.e., Council on Aging, East Carolina University, Greenville Parks & Recreations, Local and Statewide Senior Centers). The primary focus of recruiting by various means was to reach as many older adults as possible to meet the final participation rate (i.e., thirty participants). The details of the final sample recruited for the study have been provided in the results section (i.e., Chapter 4).

General message and learning objectives. ***General message.*** The recruitment material (i.e., advertisements, flyers, emails, social media posts) provided an announcement regarding the following: a general overview and purpose of the study, which the study is seeking to recruit, reasons for participating, and the learning objectives of the study. The general message conveyed: “The following study seeks to address fear of crime or perceived risk of crime

expressed by older adults or senior citizens. Study participants will be given safety information on various topics, from community and home safety to personal safety and self-defense techniques. The offered benefits of participating in the study will be three-fold. First, participation in the study can potentially help a person feel less fearful of crime or risk of being the survivor of a crime. Second, participation could raise one's confidence by engaging in leisure activities alone or with family and friends. Lastly, participation could increase a person's assurance about dealing with unsafe situations at home or out of the community."

Learning objectives. There were five learning objectives for participants engaging in the study. These learning objectives focused on educating and providing safety information, increasing safety awareness, helping participants feel afraid about fear of crime or perceived risk, and increasing overall confidence to address unsafe or dangerous situations (Hollander, 2004; Modelmugging.org, 2022; World of Self-Defense, 2022). See Table 3 for further details on the learning objectives.

Table 3

Learning Objectives: The Explicit Goals for Engaging in the Study

Learning Objectives	Explicit goal
Objective 1	To provide beneficial safety and self-defense information that educates participants on maintaining personal safety in various settings (i.e., home, community, online).

Objective 2	To increase the participant's safety awareness by recognizing and identifying unsafe or potentially dangerous situations.
Objective 3	To help participants feel less afraid about being the victim of a crime and decrease the perceived risk of being a victim, whether at home or out in the community.
Objective 4	To help participants feel more confident with engaging in activities or leisure activities, at home or out in the community, whether alone, with family, or friends.
Objective 5	To help participants feel more confident with successfully addressing and managing potentially unsafe or dangerous situations.

Note: Table 3 gives an overview of the five learning objectives for signing up and participating in the study.

Participation link and use of Qualatrics. The recruitment material (i.e., advertisements, flyers, handouts, email correspondence, social media posts) contained a survey link participants could access to sign up for the study. See Appendix B for an example of the recruitment flier and link. The link was provided through an online platform known as Qualtrics to obtain the following. First, to gain the participants' basic information (i.e., first and last name, phone number, address, email address) and demographic information (i.e., age, gender, race, ethnicity,

work history). Secondly, to gauge the participant's availability by designating days and times they might engage in the study. Participants were also asked to review and provide consent before any data was collected (e.g., IRB, see Appendix T). Lastly, the platform screened participants to see if they met the inclusion criteria.

The screening measures included completing a demographic and physical readiness questionnaire (i.e., PAR-Q+). Both are discussed later in the study procedures. Once participants reviewed and consented to the IRB, provided basic information, and completed all screening documents. Then the primary investigator randomly assigned participants to the treatment or comparison group. The recruitment procedure details have been provided in Appendix A.

Inclusion criteria. The inclusion criteria for the present study required participants to meet the following requirements. First, participants were required to fall within the age group of "older adults." For the present study, older adult participants were those 55-years of age and older. Second, participants would need to meet physical fitness criteria and be physically fit or capable of safely engaging in self-defense training. Participants must also pass the Physical Activity Readiness Questionnaire for Everyone (PAR-Q+). The PARQ+ was used to assess whether participants were physically able to engage in the study, especially if assigned to the treatment group (i.e., augmented group). Third, a participant had to self-report being emotionally and mentally comfortable discussing and processing various safety topics or concerns during the psychoeducation group counseling. Additionally, participants had to self-report emotionally and mentally comfortable discussing safety or attack scenarios during the self-defense training. Questions were included in the demographic survey to gauge the participant's mental and emotional comfort levels with engaging in the study topic.

There were also technology inclusion criteria. Due to the unprecedented nature of the pandemic and the study population's high risk, the study was provided remotely (i.e., online). Successful participation in all aspects of the study (i.e., complete consent forms, participate in the psychoeducation groups and self-defense, and complete all questionnaires and surveys) required participants to meet the following technology criteria: access to reliable internet, bandwidth, and technology (i.e., reliable Wi-Fi, computer, laptop, iPad, iPhone, smartphone, email) that supports the online platforms used in the study. The justification for inquiring about technology was to ensure participants had access to technology that supported the study's primary platforms: Qualtrics and Cisco WebEx.

Participants were also required to attend a minimum of four study sessions out of the six and complete all of the study's assessments. The researcher provided at least one make-up session if a participant missed any of the six sessions. The justification for being flexible with the delivery of the study was to accommodate the older adult participant, knowing they may experience unexpected challenges (i.e., unexpected sickness, sudden doctor's appointments, transportation or personal issues, or COVID-19). Lastly, the one criteria that every participant had to meet was the completion of all the assessments, including the self-defense skills test by the treatment group. Ensured completion of the assessments allowed the research to assess any change regarding fear of crime and self-efficacy over time. Ultimately, the inclusion criteria outlined acted as a screener for ensuring only those participants met the criteria to participate in the study.

Consent procedures. Consent was obtained from all of the participants before the first group session. The consent form was provided and accessed through an online Qualtric recruitment link. Consent was given once a participant had accessed, reviewed, and signed their

name to the consent form in Qualtrics. Verbal consent was obtained during the first group session. To ensure participants understood the purpose of the study, a description and overview of the study's purpose was provided on multiple occasions. Those occasions included: the recruitment efforts online, through the electronic sign-up form, when participants signed and completed the consent form, and before the first group session. Lastly, a paper copy of the consent form was mailed to participants who completed the form.

The survey platform used in the study was Qualtrics or *Qualtrics: Survey Solutions for Success*. Qualtrics is a free web-based software with over 85-question types used to build and distribute surveys (Bosch and Duong, 2020). Qualtrics also allows collecting survey data and evaluating the data by exporting the data directly to SPSS in PDF or Excel format (Bosch and Duong, 2020). In addition, Qualtrics is a software supported and provided by East Carolina University. The researcher and participants accessed and used Qualtrics as provided by the university.

East Carolina University (ECU)'s Institutional Review Board (IRB) informed consent form was the consent method. The ECU IRB informed consent form provided the following: an overview of the study, its purpose, the responsibilities and rights of the participant, and the researcher's duties (see Appendix T). The IRB Consent Form gained permission to record the group sessions and contact information if the individual would like to discontinue participation, report an offense, or decline the use of their statistical data. Furthermore, the IRB provided participants with information on who would view the recordings, how the recordings would be stored, and how long recordings would be kept. Finally, the IRB provided details on when the recordings would be destroyed once the retention time for study materials had expired. The

consent form was provided to participants by email and Qualtrics, and a paper copy was sent by mail.

No data was collected, including the screening questionnaires (i.e., demographic questionnaire and PAR-Q+), until the IRB had been reviewed and verbal consent had been gained. Additionally, participants could not participate in the study until they had reviewed and agreed to the IRB. Consent documents were also mailed to participants who passed all inclusion and screening criteria and randomly assigned to one of the study groups. Due to the nature of the pandemic, there was a waiver of signatures. Verbal consent was also obtained for the IRB outlined in this section.

Screening Procedures and PAR-Q+

Once consent had been obtained, participants were prompted to complete the demographic questionnaire and PAR-Q+. A preface to the demographic questionnaire briefly described the study and the overall purpose. The questionnaire also obtained contact information, which included: the participant's name (first and last), age, contact information (i.e., email address and phone number), and availability to participate (i.e., dates and times). The demographic survey also gained additional information on the participant, such as age, gender, retirement status, and previous employment. The inclusion criteria questions and PAR-Q+ were also provided at this time. Beyond the age criteria, the demographic questionnaire inquired about the participant's past experience with therapy and self-defense and their comfort level with discussing various safety topics. At the end of the overall recruitment survey, the PAR-Q+ was provided. The assessment evaluated readiness to engage in physical activity by gaining insight into the participant's current health. Individuals who did not pass the PARQ+ were asked to

acquire a physician's consent before participating in the study. See Table 4 for an overview of the screening instrumentation used in the present study and what each screener assessed.

Additionally, details on the PAR-Q+ are provided in the chapter's instrumentation section; see Appendix P for the PAR-Q+ instrument. The researcher sent a follow-up "welcome " email once potential participants answered all screener questions and met all inclusion criteria, the researcher sent a follow-up "welcome" email. In this email, the researcher gave details on the start of the first group session. The researcher adhered to strict confidentiality and HIPPA standards for all information obtained.

Table 4

Screening Instrumentation and Procedures

Screening Instrument	Criteria Assessed	Time Given

Demographic survey	• Whether or not the participant meets the inclusion criteria of the study.
	• Inclusion criteria include;
	  ○ Age
	  ○ Mental and emotional comfort level with engaging in the study
		Upon signing up to participate in the study

	○ Mental and emotional comfort level with discussing safety topics and crime ○ Technology suitability	
Physical Activity Readiness Questionnaire for Everyone (PAR-Q+)	• PAR-Q+ assessed the inclusion criteria for the participants being physically able to engage in the study. • PAR-Q+ assessed the participant's readiness to engage in physical activity or new exercise • PAR-Q+ also assessed for any physical or other chronic health issues that might prevent the participant from engaging in self-defense training.	Upon signing up to participate in the study

Note: Table 4 provides an overview of the screening instrumentation, the inclusion criteria, and when a potential participant was evaluated.

Random Assignment

Once recruited, participants were randomly assigned to either the treatment group (i.e., augmented psychoeducation group counseling and self-defense group) or the comparison group (i.e., psychoeducation group counseling only group). After the participant was randomly assigned to one of the two groups, the first group session and the start of the study were scheduled. Before starting the first group session, participants were sent a "welcome" email with a second electronic Qualtrics link. The link allowed participants to access and complete the first set of pre-test assessments (i.e., Fear of Crime Scale (FCS), Perceived Risk of Crime Scale (PRCS), and Perceived Self-Efficacy Scale (PSES)). The first remote or online group session occurred once randomly assigned to a group (i.e., treatment group versus comparison group).

Remote Delivery of Online Group Sessions

Due to the high-risk nature of the study population to COVID-19, both the treatment group (i.e., augmented psychoeducation group counseling and self-defense group) and comparison group (i.e., psychoeducation group counseling only group) was provided virtually (i.e., online). Cisco WebEx was used to offer group sessions (i.e., treatment group sessions and comparison group sessions) remotely online. Cisco WebEx is an online video conferencing application (Webex.com, 2021). The online delivery of group procedures through online video conferencing technology (e.g., Cisco WebEx) allowed participants to engage in the study safely, from their homes, and without fear of being exposed to the virus. Cisco WebEx is a secure telecommunication platform offering video calling, chat, web conferencing, and video

conferencing services (Webex.com, 2021). As a HIPPA compliant platform, Cisco WebEx allows for ease of use and implementation for those engaging in video conferencing online (Webex.com, 2021). See Table 5 for details on the technology implemented for the study.

Table 5

Technology Utilized: Type and Function

Technology	Type	Purpose of the Technology
Qualtrics	• An online survey tool allows users to build, distribute, and analyze the survey data.	• Sign-up participants • Screen participants • Obtain Consent for participation
Cisco WebEx	• A secure telecommunication platform that offers video calling, video chat, web conferencing, and video conferencing services	• Provide the remote psychoeducation group sessions • Provide the remote self-defense training sessions

Note: Table 5 gives an overview of the technology used to implement the study and the purpose or use.

Online Group Procedures and Group Size

Online group procedures. Based on the safety concerns related to the pandemic, the researcher reasoned using an online approach for the group sessions would be appropriate. Unable to conduct the group sessions in person, the researcher used Cisco WebEx (i.e., video conferencing technology) to conduct the group sessions. Participants were sent the Cisco WebEx link by email, allowing them to access the weekly online session. Once logged in to the session using the Cisco WebEx link, participants were asked to turn on their cameras and ensure the microphone and audio systems were working properly. Ensuring the participant had their camera and audio features on allowed them to successfully engage in the session and interact with the researcher and other participants. At the beginning of each session, the researcher would share a PowerPoint presentation on the safety information scheduled to be discussed after the initial check-in. During the presentation, participants were encouraged to ask questions and share stories about their own experiences. Even though COVID-19 kept the group sessions from being conducted in person, providing the group sessions online allowed the participants to still connect, interact, process, and share their fear of crime in a structured and therapeutic manner with others.

The researcher also kept the group sessions small to maintain the participants' safety and well-being. By controlling the number of participants permitted to engage remotely at one time allowed the researcher to monitor each participant's physical, mental, and emotional safety. Smaller psychoeducation group sizes often allow more individualism and foster an intimate environment (Rahmani, 2018). A smaller group can also be advantageous in maintaining the group's boundaries and minimizing harm to participants (Rahmani, 2018). The latter, minimizing damage, is more achievable for smaller groups. A group therapy instructor can monitor the

mental and emotional well-being of the participants during the group process and minimize the waste of time and resources (Rahmani, 2018).

Additionally, a small group size allowed the group instructor and primary researcher to monitor the physical safety needs of the participants engaging in self-defense training (Modelmugging.org, 2021; Whitmoyer, 2020). Therefore, a treatment group or comparison group had no less than two participants in each group or a maximum of nine to ensure the safety and coherency of the study's efforts. Based on the study's sample size (i.e., $N = 30$) requirements, the treatment and comparison groups were offered remotely until each group met the participation rate of 15-participants per group. By the completion of the present study, a total of eight groups ($n = 4$, treatment group; $n = 4$, comparison group) with two to six participants per group had been offered.

Before the first intervention session, participants of both groups (i.e., the treatment and comparison groups) were asked to complete the first set of pre-test (Time 1) measure instruments. Those measure instruments were the Fear of Crime Scale (FCS), Perceived Risk of Crime Scale (PRCS), and the Perceived Self-Efficacy Scale (PSES). In the first group session, those in the treatment (i.e., augmented psychoeducation group counseling and self-defense group) were given the Self-Defense Proficiency Skills Test (SDPST). Upon measuring, the participants of both groups (i.e., treatment and comparison groups), the group sessions were held once a week for a total of six sessions over six weeks. Additionally, each group session was 60-minutes in length, for a total of six hours completed over the six-week period.

The augmented psychoeducation group counseling and self-defense group (i.e., treatment group) sessions were divided into two 30-minute increments. The first 30-minutes of the augmented group included the psychoeducation group counseling piece. The latter 30-minutes

consisted of the self-defense training piece. The sessions for the psychoeducation group counseling only group (i.e., comparison group) were 60-minutes each session. During that 60-minutes, participants were provided psychoeducation group counseling only. Each treatment and comparison group session was recorded through Cisco WebEx. The recorded sessions were reviewed for inter-rater reliability by a Licensed Mental Health Counselor (LCMHC) and the dissertation chair of the study. The consent for these recordings was discussed in the consent procedures. The proceeding information outlines those procedures for both the treatment and comparison groups. See Table 6 for the group procedures and the study's time frame. See Appendix C for more details on the group procedures utilized.

Table 6

Group Procedures

Group	Duration and Number of Sessions	Group Procedures	Length of Study
Treatment group: Augmented psychoeducation group counseling and self-defense group	• 60-minute sessions, each • Total of 6-sessions	• The first 30-minutes group engages in group counseling and receives the psychoeducation safety information • The second 30-minutes will include self-defense training	• 6-week period
Comparison group: Psychoeducation group counseling only group	• 60-minute sessions, each • Total of 6-sessions	• 60-minutes of engaging in group counseling and receiving the psychoeducation safety information	• 6-week period

Note: Table 6 gives the length and number of sessions, an overview of group procedures, and the study time frame for each group (i.e., treatment versus comparison group).

Weekly Group Check-In Procedures

A weekly check-in survey was provided to further assess the participants' emotional and mental well-being. The weekly check-in allowed participants to voice any thoughts, feelings, or concerns from the last group session. The weekly check-in also provided the primary researcher insight into whether participants applied psychoeducation safety information to their everyday lives. The check-in also assessed whether the participant was practicing any self-defense techniques (i.e., basic self-defense skills) or another form of self-defense (i.e., mental or verbal self-defense). See Appendix F for the weekly check-in survey. Additional information on the survey has also been provided in the instrumentation section of this chapter.

Psychoeducation Group Counseling Procedures

The treatment and comparison groups received the same psychoeducation 'safety' information. The psychoeducation safety information has been outlined in the psychoeducation curriculum. The researcher, who has a master's in addiction and rehabilitation counseling and experience conducting group counseling, provided the psychoeducation group counseling. The researcher promoted ongoing growth and awareness during the study. The researcher employed various motivational interviewing skills to encourage group discussion, personal growth, and awareness. Motivational interviewing (MI) is a client-centered counseling style that utilizes specific techniques identified through the acronym OARS (Miller & Rollick, 1991; Reisenhofer et al., 2019).

The acronym of OARS stands for the following: Open-ended questions, affirming support and the person's self-efficacy, reflectively listening, and summarizing what's been shared

or occurred (Miller & Rollick, 1991; National Center for Biotechnology Information (NCBI), 2019; Substance Abuse and Mental Health Services Administration (SAMHSA), 2021). MI techniques allowed the researcher to build an alliance with the participants while promoting ongoing discussion and facilitating change. MI techniques also enabled the researcher to validate the participant's perceived fear while challenging any incongruent, negative thought patterns associated with the fear; in a non-confrontational manner. MI is an evidence-based approach to altering specific behavior patterns associated with negative thoughts or feelings and effectively promoting change in the participant's overall fear of victimization.

The design of the group session promoted ongoing processing and discussion of the participant's fear of crime in the following ways. First, after the psychoeducation material was provided, participants were encouraged to identify any thoughts and feelings associated with the topic that might induce a fear of crime or heightened perceived risk. Secondly, participants were asked to evaluate how those thoughts and feelings impact various aspects of their daily lives. Lastly, participants were encouraged to think of ways to make changes based on the safety information provided to lessen their concerns or fear of crime. Essentially, MI was used during the psychoeducation group session to offer mastery experiences and vicarious learning, combining SE and MI approaches. MI aligns with Bandura's theory on SE, as it promotes self-reflection and assessment through mastery experiences and vicarious learning (Liebling, 2006). Therefore, empowering participants to think about how to handle their fear of crime or threats using MI successfully promotes self-efficacy. This approach encouraged participants to understand and change how they responded to and thought about fear of crime or perceived risk. The goal was to reframe the participant's thoughts, feelings, and actions associated with fear of

crime. Providing discussion in this manner encouraged mastery of thoughts and feelings, increasing the participant's efficacy in successfully addressing a threatening situation.

Psychoeducation Curriculum

For the present study, the researcher developed psychoeducation material focused on the safety needs of older adults. The information used to create the safety material was derived from organizations and resources online (i.e., National Crime websites, US Federal Government and Law Enforcement websites, Fire Station Organizations, Older Adult and Senior Organizations, Council on Aging Organizations, and Senior Center websites), offering reliable information addressing the study population's safety needs and wellbeing. The material covered six major safety topics: personal safety, community safety, home safety, verbal self-defense, mental safety techniques, and financial and cyber safety. The material also included a brief overview of other safety tips outside the six major content areas, such as self-defense tools and basic self-defense. The specific details of the psychoeducation safety curriculum are provided in appendix D.

Including the additional information (i.e., self-defense tools and basic self-defense) ensured the psychoeducation material provided all participants with sufficient knowledge to maintain their safety. The safety material further gave a list of resources and telephone numbers (e.g., 911, a number for the police department, and mobile crisis) to be included in an emergency contact list to support the older adult's safety and well-being. The additional resources were provided to participants in a follow-up email after each group session. The follow-up email also offered a copy of the psychoeducation safety information covered that week. Each week, the manual's content was used to drive discussion and self-reflection among the participants to increase personal awareness about safety. See Table 7 for the psychoeducation safety information schedule over the six-week course.

For instance, week three focuses on the topic of community safety. During that week's psychoeducation group counseling session, participants were encouraged to identify and discuss any fears associated with crime and their community. Participants were asked to evaluate *how* they would maintain their safety in the community, alone or with family and friends. Participants were also asked to contemplate and discuss how they might prevent or address crime situations they experienced in the community. The safety information presented and discussed required participants to evaluate and discuss thoughts and feelings associated with the topic and process how they might successfully address the situation.

Table 7

Schedule of the Psychoeducation Safety Curriculum

Weekly Schedule	Safety Topic	Sample of Safety Information
Week 1	Personal Safety	• Maintaining personal safety • Building awareness • Keeping your environment secure
Week 2	Verbal Self-Defense	• Verbal self-defense and the power of words • De-escalation techniques • Body-language tips • Remaining calm under pressure
Week 3	Community Safety	• Community safety tips • Basic car and transportation safety • Buddy system and neighborhood watch tips • Do's and Don'ts of interaction
Week 4	Mental & Physical Self-Defense	• Mental techniques to remain calm and cool-headed • Fostering mental awareness, toughness, and strength • Basic self-defense techniques and tools

Week 5	Home Safety	• Basic home safety tips for inside and outside the home • Fall and injury prevention tips • Other safety considerations and important safety items
Week 6	Additional Safety Tips	• Financial safety tips • Cybersafety tips • Review of Previous Topics

Note: Table 7 provides an overview of the psychoeducation group counseling program provided during the present study.

Self-Defense Group Procedures

The self-defense training program was included in the treatment intervention as part of the augmented psychoeducation group. Only the older adult participants of the augmented psychoeducation group (i.e., treatment group) received the self-defense training. The older adult participants were trained in basic physical or self-defense skills (i.e., basic arc block, punch, jab, palm strike, elbow). Basic physical or self-defense is a simple defense technique to minimize potentially unsafe situations (Kelly, 2021). Basic self-defense techniques are meant to be easy to learn and require moderate effort (Kelly, 2021). The expectation is for the older adult participants to use the self-defense techniques they learn.

An essential aspect of providing practical self-defense training was ensuring participants' safety and well-being. When working with older adults who may be experiencing physical limitations (i.e., joint issues, limited range of motion, or poor vision) or chronic health issues (i.e., high blood pressure, chronic pain, diabetes, heart disease), this is particularly important (Antonia, 2016). There are several ways in which the present study worked to maintain the physical safety and well-being of the older adult participants. Preventive measures were used to assess a participant’s physical capability to engage in the self-defense portion of the study. The

preventative measure used was the PAR-Q+ survey. Again, the PAR-Q+ is a physical activity readiness assessment that indicates if a person needs to consult with a medical professional before engaging in a new physical activity or exercise. The PAR-Q+ was the screener instrument used for the inclusion criteria requiring the older adult participants to be physically able to engage in the self-defense training. Individuals signing up for the study were required to meet the requirements of the PAR-Q+ to be assigned to a group. Details on the PAR-Q+ have been provided in this chapter's instrumentation section. A copy has also been provided in Appendix P. A second precautionary measure occurred during the consent procedures. Once a participant was assigned to a group, they were informed of the safety procedures and expectations for engaging in the study. See Table 8 for an overview of the safety measures utilized in the present study.

Table 8

Safety Procedures for Older Adults Receiving Self-Defense Training

Safety Procedure	Procedure Details	Implementation of Procedure
PAR-Q+ screener	• The Physical Activity Readiness Questionnaire for Everyone (PAR-Q+) is a screening tool to assess readiness to engage in a new physical activity or exercise.	• A screener tool is provided when an individual seeks to participate in the study.

	• If the participant did not pass the PAR-Q+ screener, they were required to consult with a physician and gain approval from a medical professional before engaging in the study.	

Safety Prompts and Reminders	• The self-defense (SD) instructor provided reminders of safety expectations and rules before the start of each session.
	• The SD instructor identified unsafe environmental factors. Such as the following:
	  o Clutter or objects and furniture obstructing the training space.
	  o Tripping or falling hazards.
	• The SD instructor provided verbal safety prompts during the training regarding:
	  o Maintaining proper movement and form
	  o Maintaining proper balance
	  o Maintaining a safe range of movement
		During the training session

Monitoring for Safety	• The SD instructor monitored the participant at all times for;
	  o Proper form
	  o Body positioning and movement
	  o Proper balance
	  o Placement of participant's stance
	  o Placement of feet and hands
	• Participant's body language and affect for any stress or distress
		During the training session

Provide Modifications	• The SD instructor provided modifications to the training instruction if needed.
	• Modifications may include but are not limited to the following:
	  o Using a chair or other object to maintain balance
	  o Modifying self-defense techniques to ensure proper form and range of motion
	  o Have the participant practice the techniques from a seated position.
		During the training session

Note: Table 8 is an overview of the safety procedures employed before and during the self-defense training sessions.

During the self-defense training sessions, the self-defense (SD) instructor provided additional measures to ensure the safety and well-being of the older adult participants. Those additional measures included the following. First, at the beginning of each self-defense session, the SD instructor reviewed the safety rules and expectations. The SD instructor also reminded participants about training safely during the session and practicing afterward. Second, the SD instructor gave ongoing and consistent verbal prompts on safety reminders while providing instruction and training. The instructor also monitored the participants' training space. If necessary, suggestions were made to make the participant's training space and practice area safer.

Before starting the training session, the instructor would remind participants to check and ensure there were no hazards. The SD instructor identified and brought any unsafe training situations to the participant's attention (i.e., cluttered training space, tripping or falling hazards, and furniture or objects obstructing the space). During the self-defense session, the instructor monitored the participant for safety as they practiced or engaged in the training. Specifically, the instructor would monitor the participant's form, body positioning and movement, stance, and placement of feet and hands during the training. If training became hazardous, the instructor would prompt participants to engage in proper movements (i.e., maintain good balance, proper form, proper stance, and safe range of motion). The instructor also monitored the participant's body language and affect for increased physical or emotional stress or distress during training. Lastly, the instructor may modify the self-defense training or techniques to allow full engagement and meet the physical needs of the older adults.

Use of Modifications to Ensure Safety

Based on the older adult's physical capabilities, the self-defense instructor would modify the self-defense techniques to meet the participant's needs. Modifying a technique is commonplace in a physical fitness learning environment (i.e., group fitness classes, self-defense classes, martial arts classes) (Panton & Loney, 2000). Modifying allows for diversification, increases accessibility and inclusivity, and promotes physical activity among older adults (Antonia, 2016; NY Department of Health, 2021; Panton & Loney, 2000). Modification of the self-defense techniques was based on the common health concerns (i.e., general joint pain, poor vision, balance concerns, over-exertion) or needs exhibited by the older adult participants (Antonia, 2016). Ways the self-defense techniques could be modified could include: having participants practice the techniques while sitting, having participants use a chair for stability, requiring the slow-methodical practice of the self-defense skills, and reaching or lifting the limbs only at a comfortable height (Antonia, 2016).

Overview of Training Schedule and Techniques

The older adult participants were taught self-defense skills that they could effectively use in a self-defense situation. The self-defense training sessions were 30-minutes in length and occurred after the first 30-minutes of psychoeducation information. The self-defense techniques covered were organized into five content areas: basic and advanced blocking techniques, basic and advanced striking techniques, basic elbow and knee techniques, combination techniques, and basic grab defense techniques. The final self-defense session included an overview of all self-defense techniques taught over the six-week period. An overview of the self-defense techniques and curriculum has been provided in the appendix (see Appendix H). Like the psychoeducation group counseling design, a specific content area will be covered each week. For example, week

one will teach participants basic striking and blocking, followed by advanced blocking and striking in week 2, and so forth. See Table 9 for an overview of the weekly schedule of the self-defense curriculum and techniques provided in the present study.

Table 9

Schedule of Self-Defense Training Curriculum

Weekly Schedule	Self-defense Curriculum	Sample of Self-defense Techniques
Week 1	Basic Striking and Blocking Skills	• Basic strikes using a punch, hook, jab • Basic blocking techniques
Week 2	Advanced Striking and Advanced Blocking	• Advanced strikes using a palm heel strike, knife-hand strike, claw strike) • Advanced blocking techniques
Week 3	Combination of Blocking and Striking Techniques	• Combo of blocks and strikes previously learned • Attack scenario practice
Week 4	Basic Elbow and Knee Strikes and Grab Defense	• Elbow strike • Knee strike • Grab defense
Week 5	Combo of Elbow/Knee Strikes and Review of Grab Defense	• Combo of elbow and basic/advanced strikes • Combo of knee and basic/advanced strikes • Review grab defense
Week 6	Cumulative Review	• Attack scenario practice • Review all techniques learned

Note: Table 9 provides an overview of the self-defense training curriculum provided to the augmented psychoeducation education group.

Assessment of Self-Defense Skill Acquisition

The participant's acquisition of the self-defense skills was assessed using a self-defense proficiency skills test (SDPST). The self-defense proficiency skills test evaluated the participant for speed (i.e., performing the skill in 19-seconds or less), accuracy (i.e., striking or blocking the intended target with precision), and effectiveness in performing the skill (i.e., the technique is effectively performed). The skills test was given before the first self-defense session (pre- or Time 1) and at the end of the last self-defense session (post- or Time 2). See Appendix K to view the self-defense proficiency skills test. Detailed information on the SDPST and how speed, accuracy, and effectiveness were measured are provided in the instrumentation section of this chapter.

Self-Defense Curriculum

The treatment group received the first set of self-defense techniques during the first session. The first set of techniques they learned was throwing several basic strikes, including a straight punch, a jab, and a hook punch. The participants were also taught basic blocking techniques to counter these basic strikes (i.e., block a straight punch, jab, or hook punch). During the second week, participants learned a series of advanced striking techniques, including a palm-heel strike, a knife-hand strike, and a claw or gauging strike. Participants reviewed blocking techniques and how to block each of the advanced strikes. In the third week of self-defense training, participants practiced combining the previous techniques learned from weeks one and two into effective self-defense sequences (i.e., block and striking defense sequences). Participants also practiced the combined sequence of blocking and striking using attack scenarios.

The attack scenarios helped the participant apply real-world applications to the techniques learned and understand how to execute and use the technique effectively. Participants were asked to imagine using the blocking and striking techniques learned and defending themselves during the scenario practice. The attack scenarios' basis was derived from self-defense situations discussed during the psychoeducation safety group sessions. For instance, in week two, the psychoeducation material covers community safety. Analogies had participants imagine a scenario where an unknown person approached the participant while loading groceries into their car. The instructor used self-defense analogies so participants could think about how they would respond to the situation and what steps they would take to secure their personal safety. Once an analogy of the attack scenario was introduced, participants demonstrated the self-defense techniques. For example, the instructor had participants imagine the unknown person approaching them, becoming angry, and trying to strike them. The participant would then be directed to demonstrate a combined sequence of self-defense techniques they've previously practiced to protect themselves.

The attack scenarios required participants to imagine defending themselves by striking their imaginary opponent effectively and with proper form. For example, a participant might be asked to imagine protecting themselves against a basic self-defense situation (i.e., a stranger approaching them, a stranger trying to strike at them, a stranger trying to grab them or something on their person). The participant was then asked to demonstrate how they would address the scenario using the learned techniques. The instructor monitored the participant's mental and emotional well-being during the attack scenario practice by observing their body language, affect, and distress. If a participant exhibits any elevated distress or dis-ease, the instructor had the participant stop and no longer participate in attack scenarios.

The fourth week of the program introduced participants to the proper use of elbow strikes, knee strikes, and defense against being grabbed. The fifth week combined the knee and elbow strikes with the previously learned techniques (i.e., blocking and strikes) into an effective self-defense sequence. The sixth and final week, all of the techniques learned were reviewed and included the final practice using attack scenarios. During each 30-minute self-defense training session, again, participants were monitored for proper form, effective use of techniques, and efficiency in using the technique. Additionally, the instructor's top priority was ensuring the participants' physical, mental, and emotional safety. Participants were also asked to practice the techniques learned throughout the six-week program to retain the information outside of class. Self-defense (SD) techniques were based on the primary investigator and SD instructor's previous training in martial arts, specifically Hakka Bak Mei Kung fu and Isshinryu. An overview of the curriculum is provided in Appendix H.

Procedures for the Self-Defense Instruction

Due to the remote nature of the study, training primarily involved individual practice (i.e., air work of the techniques), excluding partner practice during a session. If a participant secured a training partner, partner practice of the skills could occur. However, due to COVID-19, the training partner must be the same household member or another study participant. The training partner was required to pass all of the screening and inclusion requirements outlined for the study.

To promote learning and application of the self-defense skills, the SD instructor demonstrated skills using a "BOB Body Opponent Bag." Like a freestanding punching bag, the BOB body opponent is a life-like, vinyl skin training dummy with a base unit (Centurymartialarts.com, 2021). The BOB is a safe self-defense training tool ideal for practicing

striking and punching, sparring techniques, or target work (centurymartialarts.com, 2021). The BOB allowed the self-defense instructor to demonstrate and provide a context for the various self-defense skills taught virtually to the participants. Before having participants practice a self-defense skill, the instructor would provide information on the skill, demonstrate the technique on BOB, and go over the safety requirements. Next, participants would start the training process by practicing techniques individually in the air to gain an implicit understanding of the technique.

Participants would do 'air work' (i.e., practice the techniques without a partner or striking anything) during the practice phase. Practicing alone or in the air allowed participants to learn the skill implicitly and correct any errors noted. The instructor also encouraged awareness of errors by evaluating form and precision to gauge the effectiveness of the techniques learned. The participant was further encouraged to monitor their form and technique to ensure effectiveness and accuracy. Participants were asked to implicitly feel what it is like to use the technique and how they might correct their identified errors. Mastery experiences were offered through the overall design structure of the self-defense training sessions. Mastery experiences gradually introduced self-defense skills, from basic techniques to more advanced skills. Gradually introducing participants to self-defense techniques promotes mastery of a skill before learning more complex skills (Gabbett & Masters, 2011).

To promote safety, body awareness, and effective skill acquisition during each training session, the instructor emphasized the proper form and use of the technique (e.g., proper punching and blocking, proper use of elbow strikes and a knee, and proper grab defense). The SD instructor demonstrated the proper and safe form on BOB. The SD instructor encouraged participants to use the proper placement of their hands and feet to safely, accurately, and effectively execute the defense skills. Emphasizing proper placement of the participant's hands

and feet reduced the likelihood of physical injury or falls. Additionally, ensuring proper technique execution encouraged participants to execute the self-defense techniques efficiently and effectively.

Learning proper execution of the technique helped a participant gain physical awareness of their movements and promoted error recognition and correction. Through the use of the BOB, treatment group participants learned vicariously how to perform the skills properly, successfully, and safely. However, once the skill was demonstrated, participants were required to perform the self-defense skill independently. Doing so promotes self-awareness and error recognition, and correction. Allowing the participant to identify and correct their own errors further enabled the acquisition of the self-defense technique. Additionally, the implicit training approach helped the participant adequately apply what they learned to protect them from a real-life threatening situation.

Attack scenarios introduced through self-defense analogies inspired learning by applying self-defense techniques to various self-defense situations. The scenarios helped participants learn how to recognize multiple self-defense situations, *how* to address them, and what skills to use. The training session included verbal self-defense skills and body language tips that helped participants manage a threatening situation more effectively. Spatial awareness was taught during practice as part of maintaining safety. Analogies and physical demonstrations by the self-defense instructor emphasized proper body placement, proper use of the technique, spatial and body awareness, and appropriate body language. Again, mastery experiences were promoted by learning novice self-defense techniques before learning more complex self-defense skills. The overall goal of the self-defense training program was to provide mastery experiences that increase the participant's self-efficacy and reduce their fear of crime and perceived risk of crime

The primary focus of the self-defense instructor was to maintain the safety and well-being of the participants at all times. The instructor monitored the participant's form, demonstration of techniques, placement of feet and hands, body language, and overall emotional affect. The self-defense instructor further promoted safety by making the participant aware of unsafe situations (i.e., safety of space or fall hazards, emphasis on personal awareness, and balance through correct body movement and positioning). Lastly, the SD instructor reminded participants of basic safety rules and encouraged positive online group interaction.

Self-defense and enhancing self-efficacy. The participant's self-efficacy to ward off or address a threatening experience was fostered using mastery experiences during the training. Mastery experiences were provided by having the participants learn self-defense techniques implicitly and gradually. Implicitly providing SD required the participants to feel the experience of successfully executing the SD technique being learned before engaging in more advanced ones. By promoting a gradual approach to learning, the instructor ensured the participant developed proper efficacy beliefs about using the SD techniques. A new technique was introduced as the participant's skill acquisition increased and will build off previous techniques and the participant's previous knowledge. Further discussion on the implicit self-defense instruction was provided next.

Implicit instructional techniques. The type of instructional method employed during the self-defense training was primarily implicit. The use of implicit instruction assisted in providing the foundation of how the self-defense techniques are communicated to participants. Even though the SD instructor used the BOB to demonstrate, the SD instructor gave little to no explicit instruction when presenting the technique. Instead, implicit instructional techniques required participants to engage in body awareness and error identification when training. The

only time explicit instruction was provided was when a safety concern arose during the training session, such as improper placement of the hands when striking, which could cause an injury.

Implicit instructional techniques involved using analogies, cue words, physical demonstration of the techniques, and role-playing various attack scenarios. The purpose of implicit instruction was to help promote mastery experiences through increased mental and physical awareness by feeling how to execute the technique. Providing implicit styled instruction allowed the participant to learn without the hindrance of excessive rules or overthinking the technique's execution. Implicit instruction allowed the self-defense skill building to become intuitive to the person learning. Such instruction promoted multiple mastery experiences by having the participant practice successfully implementing the technique individually and with a partner. By promoting mastery experiences through implicit instruction, the participant experienced errorless learning.

Errorless learning is a motivational strategy used in coaching to help reduce negative error correction and make the learning experience more pleasant (Kal et al., 2018; Poolton & Zachry, 2007). Errorless learning or error-reduced learning is often used as an intervention technique in an implicit training environment and analogies during practice (Kal et al., 2018; Poolton & Zachry, 2007). An example of errorless learning involves a novice golfer putting close to the hole or close range, then gradually increasing the putting distance (Kal et al., 2018). Error-less learning implicitly promotes error correction. Implicit learning further supports errorless learning by targeting outcomes, using cue words, and personalizing the task being performed. For self-defense training, implicit instruction during partner work also promotes vicarious learning, which will help the participants learn from one another. Again, implicit instruction has increased the participant's overall self-efficacy. See Appendix J on the implicit

self-defense training techniques for additional details and examples of the analogies, cue words, and errorless learning used during the study.

The instructor used attack scenarios and visualization of self-defense scenarios to further promote learning of the techniques. A matrix of the implicit self-defense instruction is provided in the appendix (see Appendix I). Participants from both groups (i.e., treatment and comparison groups) were measured on fear of crime, perceived risk, and self-efficacy. The instruments used to measure participants occurred pre (Time 1) and post (Time 2) the study. Now a discussion on the integrity measures taken to ensure the procedures of the group and self-defense training was conducted as outlined.

Integrity Measures and Manipulation Checks

Manipulation Checklists

The delivery of the interventions for both the treatment and comparison groups was offered remotely online. Cisco WebEx was the secure online platform to provide remote online group sessions and self-defense instruction. At the same time, Qualtrics will be the online platform for providing the instrumentation and measures of the study. To ensure the integrity of the study procedures, a manipulation check of the psychoeducation instruction occurred. A manipulation checklist for the psychoeducation group counseling evaluated if the researcher effectively used motivational techniques (MI) and OARS (i.e., open-ended questions, affirmations, reflections, and summaries) during the instruction. See Appendix E for the psychoeducation manipulation checklist.

Manipulation Checklist Procedures

The procedure for conducting the manipulation checklists employed the following steps. First, the researcher recorded the weekly group sessions for the treatment and comparison groups using Cisco WebEx. Before the first group session, consent for recording the sessions was gained through the IRB. A third party outside the primary researcher was identified and vetted to conduct the psychoeducation group counseling checklists. A Licensed Clinical Mental Health Counselor (LCMHC) agreed to perform the integrity checks by reviewing at least two recordings per group. The researcher trained the LCMHC on how to conduct the manipulation checklists. The training included a review of the psychoeducation group counseling manipulation checklist form, the instructions provided on the form, a review of the motivational interviewing techniques to be observed (i.e., OARS), and the aim of completing the checklist. The LCMHC was already an accomplished clinical professional with a history of educating, training, and supervising counselors-in-training. The LCMHC also had previous training in MI and the study's manipulation checklist form, so only minimal training was required. The LCMHC inter-rater monitor used the checklist (see Appendix E) to ensure the researcher employed MI or OARS techniques during the group sessions. Information obtained from these observations was used to ensure the reliability of the design and procedures of the study.

Outcome of the Integrity Measures

Manipulation checklists were completed to determine if the Motivational Interviewing (MI) procedures were incorporated into the psychoeducation group counseling as outlined. A total of sixteen recorded (N = 16) group sessions (n = 8, Treatment group sessions; n = 8, Comparison group sessions) were reviewed for inter-rater reliability. The sixteen recordings were reviewed by a Licensed Clinical Mental Health Counselor (LCMHC). The LCMHC

evaluated a total of eight treatment group recordings (i.e., the first thirty minutes of each recording) for a total of four hours (i.e., 240 minutes). Additionally, the LCMHC reviewed a total of eight comparison group recordings (i.e., 50 minutes of each recording) for a total of seven hours (i.e., 400 minutes). A total of sixteen manipulation checklists were completed, eight per group. The following are the results of the manipulation checklists for each group.

Treatment Group Manipulation Checklist Results

The inter-rater monitor reviewed the first 30-minutes of the treatment group recordings' (n = 8). The manipulation checklist results for the treatment group indicated that multiple MI interventions were observed throughout the eight recordings. Specifically, the checklists revealed that the researcher offered numerous MI techniques per minute during the psychoeducation group counseling session. The inter-rater monitor identified substantial use (i.e., used >35 times or more) of the following MI techniques: open-ended questions, affirmations, and information giving. Of all the MI techniques, “information giving” was used the most. The monitor also revealed moderate use (i.e., used between 20-39 times) of the following MI techniques: general reflections, summaries, and paraphrasing. In addition, some of the other MI techniques observed (i.e., used between 6-19 times) were reflections of feelings, interpretations, and some closed-ended questions. The monitor also reported confrontation techniques were modeled when discussing self-defense or safety situations. The common goals noted within each session were problem identification and mutual goal setting. The inter-rater monitor also noted that the researcher demonstrated empathetic listening skills and supported participants' self-efficacy. Lastly, the monitor observed the effective use of MI to address ambivalence, promote change, elicit change talk, and build motivation to change. Overall, the treatment group appeared motivated and engaged during the psychoeducation safety group counseling sessions.

Comparison Group Manipulation Checklist Results

The inter-rater monitor reviewed a minimum of 50-minutes of the psychoeducation group sessions of the comparison group recordings (n = 8). Overall, the inter-rater monitor reviewed a minimum of eight hours of the psychoeducation group counseling sessions for the comparison group. The manipulation checklists for the comparison group revealed similar findings to the treatment group results. The MI techniques most substantially used (i.e., >50 or more times) were the following: open-ended questions, affirmations, general reflections, and information giving. Information giving and affirmation was noted to be the most widely used of all the MI techniques. The inter-rater monitor also identified moderate use (i.e., between 20-40 times) of client disclosure techniques and closed-ended questions. Additionally, the MI techniques fairly used (i.e., between 5-19 times) were reflections of feelings, summaries, paraphrasing, and interpretation. The monitor further noted the researcher demonstrated empathetic listening skills, supported self-efficacy, problem identifying, and mutual goal setting. Any confrontation techniques used during the psychoeducation group session helped model how to respond to an unsafe situation. Lastly, the inter-rater monitor noted MI techniques were used to properly promote change, address ambivalence, elicit change talk, and build motivation to change. The monitor reported the comparison group participants appeared very motivated and engaged. Now, an evaluation of the independent and dependent variables of the study will be discussed.

Independent and Dependent Variables

Independent Variable(s)

The study's independent variables were the treatment and comparison groups. The treatment group received the treatment intervention or psychoeducation group counseling and self-defense training. In contrast, the comparison group did not receive self-defense training,

only the psychoeducation group counseling piece. The controlled independent variable levels are the psychoeducation group counseling and self-defense training. The independent variables were used to test the effects on the study's dependent variables (e.g., self-efficacy and fear of crime).

Dependent Variable(s)

The dependent variables of the study for both groups were (a.) fear of crime, (b.) perceived risk of crime, and (b.) self-efficacy. A fourth dependent variable, (c.) self-defense skill, was only measured for the treatment group. Each of these variables was measured using pre-approved instrumentation two times in the study (e.g., beginning and at the end of the study). The aim was to determine if the treatment group versus the comparison group had a statistically significant effect on the dependent variables listed. The following is a discussion of the various measures employed by the study to evaluate the dependent variables and other important factors.

Measures

Several measures were evaluated in both the treatment and the comparison group. The main focus of the study was to measure any change over time in the participant's fear of crime and self-efficacy. Fear of crime (i.e., fear of crime and perceived risk) and self-efficacy were the two main variables measured for both groups (i.e., treatment group and comparison group). Self-defense skill acquisition was a third variable measured for the treatment group. Beyond the main research variables, a weekly check-in survey and final satisfaction and technology questionnaire were used to assess participants' study experience. The following is a discussion of the primary (i.e., fear of crime, self-efficacy, and self-defense skill measures) and secondary measures (i.e., weekly check-in and satisfaction and technology questionnaire).

Measures Assessing the Variables

Overall, the study aimed to compare the effects of an augmented psychoeducation group counseling and self-defense training program on older adults' self-efficacy. Self-efficacy and fear of crime, and perceived risk were measured for both groups (i.e., treatment and comparison groups) at two different time points; pre (Time 1) and post (Time 2) intervention. The measuring tools used to assess fear of crime were a Fear of Crime Scale (FCS) and the Perceived Risk of Crime Scale (PRCS). The measuring tool for assessing self-efficacy was a Perceived Self-Efficacy Scale (PSES). Only the data collected from these three measuring tools (i.e., FCS, PRCS, and PSES) were used to answer the study's research questions. Any additional measures employed are discussed later in the measures section.

These assessments were given during the group sessions at Time 1 (pre) and Time 2 (post). The total score of the FCS and PRCS were used to provide the results for fear of crime. The total score of the PSES delivered the results for self-efficacy. See Table 10 for a brief overview of the instrumentations used to measure the dependent variables.

Table 10

Instrumentation Used to Measure the Dependent Variables

Dependent variable	Instrumentation	Scale(s)	Total Cronbach Alpha	Time Variable is Measured
Fear of Crime	Fear of crime scale (FCS)	The scale consists of 10-items rated on an 11-point Likert scale. The scale contains 3-	0.90	• Time 1: Pre –before the start of the first session

		composite indices, ranging from minor to severe, assessing a person's fear of becoming a victim of the following crimes: • Personal violations • Property offenses • Public order offense A higher score for each of these indices indicates a higher fear of crime, which are broken down into three indexes of fear: • General fear index ○ All 10-items • Personal crime index		• Time 2: Post – at the end of the last session

		○ 4-personal offense items • Property crime index ○ 5-property offense items A score for each index is obtained by summing up each item. The results for the three sub-indexes are reported in the Results Chapter. A total score for the FSC will be reported in the results section.		

		The research questions will be answered using the total score of both the FCS ad PRCS scales.		
	Perceived risk of crime scale (PRCS)	The scale consists of 10-items rated on an 11-point Likert scale. The scale contains 3-composite indices ranging from minor to severe, assessing a person's perceived risk of being a victim of a crime. Those indices are: • General risk ○ All 10-items • Personal crime risk	0.87	• Time 1: Pre –before the start of the first session • Time 2: Post – at the end of the last session

		○ 4-personal crime items • Property crime risk ○ 5-property crime items A higher score for each of these indices indicates a higher perceived risk. The results for the three sub-indexes are reported in the Results Chapter. A total score for the PRCS will be reported in the results section.		

		The research questions will be answered using the total score of both the FCS ad PRCS scales.		
Self-Efficacy (SE)	Perceived self-efficacy scale (PSES)	The scale originally consised of 37-items rated on an 11-point Likert scale. The present study used 26–items of the scale to assess participants. The scale contains 3-subscales assessing a person's perceived SE. The three forms of SE evaluated are: • Activities SE ○ 6-questions • Interpersonal SE	0.94	• Time 1: Pre –before the start of the first session • Time 2: Post – at the end of the last session

		○ 8-questions • Self-Defense SE ○ 12-questions The results for the three sub-scales are reported in the Results Chapter. A total score for SE will be reported in the results section to answer the research questions.		

Note: Table 10 provides an overview of the measures for each dependent variable: fear of crime and self-efficacy for both groups (i.e., treatment group and comparison group) and self-defense skills for the treatment group only.

Additional Measures and Instruments

In addition to the primary variables (i.e., fear of crime, self-efficacy, and self-defense skill of the treatment group only) mentioned, the researcher used four additional instruments to

evaluate participants. The aim of the additional instruments was to screen participants or evaluate progress and satisfaction. These instruments include a demographic questionnaire, a physical readiness questionnaire (PAR-Q+), a weekly check-in survey, and a satisfaction and technology questionnaire. The demographic questionnaire and PAR-Q+ were provided during recruitment to gain information and screen participants. The weekly check-in survey was provided weekly at the end of each session to assess participants regarding the last group session (see Appendix F).

The treatment group's self-defense skill acquisition (i.e., speed, accuracy, and effectiveness) were measured pre (Time 1) and post (Time 2) the study. A Self-Defense Proficiency Skills Test (SDTS) was used to measure the skill acquisition of participants (see Appendix K). The aim of conducting an SDST measure was to examine any change in the participant's acquisition of self-defense skills. The SDST evaluated any difference in the participant's speed, accuracy, and effectiveness in demonstrating a learned skill. The total score for speed, accuracy, and effectiveness provided the results for the self-defense proficiency test. Any data collected from the SDST was not used to answer any research questions. Even though the participant's self-defense skill was measured, it is not considered a dependent variable within the study. Instead, the measure will report any improvement in participants' learning of the self-defense skills learned and will drive discussion on implications for future research in Chapter 5.

Lastly, the participant's satisfaction with the online study and use of technology was assessed. The satisfaction and technology questionnaire was given after the last group session (post, Time 2) (see Appendix Q). Using these additional instruments was to screen participants, gain impertinent demographic information, assess the participant's progress weekly, and gain insight into their overall satisfaction with the study. These instruments were not additional dependent variables to be included in the study. Besides the demographic data, the results of the

secondary instruments served as potential discussion topics within the Discussion chapter (i.e., Chapter 5) of the dissertation; if any pertinent information was obtained.

As previously mentioned, participants were provided with all of these instruments using Qualtrics. See Table 11 for a brief overview of the additional instrumentation used to assess participants. A detailed overview of the instrumentation is provided in the following table.

Table 11

Additional Measures and Instrumentation Used in the Study

Measure	Instrumentation	Purpose	Time Variable is Measured
Demographic data	Demographic questionnaire	To obtain demographic information on the participants, such as: • Name • Contact information • Age • Education level • Work history • Retirement status	Given one time – at sign–up and before the start of the first session

		• Past experience with group counseling • Past experience with self-defense training • Past experience with a violent or non-violent crime • Technology conditions	
Physical Readiness Assessment	PAR-Q+	It will be used to assess the physical readiness of the participant to engage in the study. If participants fail to pass the questionnaire, they will need a doctor's recommendation or note to participate.	Given one time – at sign–up and before the start of the first session
Group check-in	Weekly Check-In survey	A weekly survey contains 11-questions. After each group session, the survey	Given weekly – at the end of each group session

		was provided to participants of both the treatment and comparison groups. The survey aims to assess the following: • Any concerns, thoughts, or feelings that have arisen since the last session • Implementation of any safety protocol • Implementation of practice of any self-defense • Progress of the participant	
Self-defense skill	Self-defense proficiency skill test	The skills test consists of 12-items used to evaluate the participant's	It was only provided to the treatment group.

		acquisition of self-defense on the following; • *Speed* in seconds • *Accuracy* in hitting the intended target • *Effectiveness* of executing the skill The skills test was derived from previous research by Sanders, 2014 and Sanders & Murray, 2018, laying the foundation for the present study.	Was assessed at the beginning (pre) and the end (post) of the study
Satisfaction survey	Satisfaction and Technology questionnaire	The survey consists of 11-items and three qualitative items. The survey will be given to participants to assess their satisfaction with the study interventions, safety information, self-defense intervention, the remote	Given one time – at the end of the last group session

		design and procedures of the study, and the overall use of the technology.	

Note: Table 11 gives an overview of the instruments used to screen participants, gain demographic information, a weekly check-in, and a final assessment of the participant's satisfaction with the technology and overall study.

Instrumentation

Fear of Crime Instruments

Fear of crime scale (FCS)

The Fear of Crime Scale is a self-report instrument consisting of 10-items used to measure a person's level of fear of experiencing or being the victim of various crimes (see Appendix L; LaGrange et al., 1992; Liebling, 2006). The FCS was developed by LaGrange, Ferraro, and Supancic (1992) and is identified as an offense-specific measure (Liebling, 2006). The term offense-specific is a legal term meaning the specific event involving breaking a social or moral rule (LaGrange et al., 1992; Liebling, 2006). Hence, the instrument measures a person's fear of experiencing an offense-specific crime. Items are rated on an 11-point Likert scale, ranging from 0 = "Not Afraid At All" to 10 = "Very Afraid."

FCS indices. The FCS is divided into three composite indices used to assess a person's fear of becoming a victim of a crime. Those indices are identified as the following: general fear of crime, crimes involving personal violations, and property offenses or public order offenses. Each of these three types of crimes ranges from minor to severe. The personal violations assessed are burglary at home, rape or sexual assault, murder, and attack with a weapon. Property offenses include being conned out of money, burglary while away, their car being

stolen, robbery or mugging, and property damage. The one public order offense assessed by the instrument focuses on being approached by a beggar or panhandler. How the offense descriptions are written is passive tense to emphasize the hypothetical nature of the scenario.

Scoring. The response scores will result in three composite indices of fear (i.e., personal crime index, property crime index, and public offender index), with a higher score denoting a higher fear of crime. For the personal crime index, the final score is the sum of 4-items (i.e., items 4, 5, 6, and 7) out of the 10-items. The index assesses personal offenses ranging from 4 to 40-points. The fear of property offense crime index score is the sum of 5-items (i.e., items 2, 3, 8, 9, and 10) out of the ten, and ranging from 5 to 50-points. The public order offense index consists of one-item (i.e., item 1), ranging from 1 to 10-points. For the purpose of the study, this one indices was included with the property crime items when scored and reported. An overall general fear of crime or final score is obtained for each of the three indices as follows. For the general fear index, the final score for one's overall fear of being a victim of a crime is the sum of all 10-items (i.e., FCS Score 1 + FCS Score 2 + FCS Score 3 +, etc. = Total FCS Score), which can range from 10 to 100-points. The higher the overall fear of crime score (i.e., 0 to 100), the greater the person's fear of crime.

Reporting FCS score and central tendencies. For the study, a pre and post-total score was calculated and reported for FCS in Chapter 4 (i.e., Results section). A total score was obtained by summing all 10-items on the scale, ranging from 0 to 100-points (i.e., FCS Score 1 + FCS Score 2 + FCS Score 3, etc. = Total FCS Score). The higher the total FCS score, the higher the fear a person reports for fear of crime. The central tendencies of the individual indices (i.e., personal and property crime) were also calculated and briefly reported in Chapter 4. Any significant findings for the individual indices and the implication were discussed in Chapter 5

(i.e., Discussion chapter). However, as previously stated, only a total score for FSC will be provided in the results section to answer the study's research questions. The same was done for the perceived risk of crime scale (PRCS) and perceived self-efficacy scale (PSES).

Cronbach alpha. The item z-scores were averaged to produce a total Fear of Crime Scale score. The FSC has an internal consistency reliability score for the three indices of fear measured, 0.90 (i.e., for general fear), 0.90 (i.e., for personal crime), and 0.82 (i.e., for proper crime), respectively (Liebling, 2006). The overall Cronbach coefficient alpha for the Fear of Crime Scale is 0.90, with the correlation between fear of personal crime and fear of property crime being 0.69 (Ferraro, 1995; Liebling, 2006; Melde, 2007). The high correlation between fear of personal crime and fear of property crime indicates fear of harm to oneself or one's possessions are related and is not limited to one type of fear (Liebling, 2006). FSC can be viewed in its entirety in Appendix L.

Perceived Risk of Crime Scale (PRCS)

The PRCS is a self-report instrument developed by LaGrange, Ferraro, and Supancic (1992) and is used to assess a person's perceived likelihood of being the victim of a crime (see Appendix M). The instrument is often provided with the FCS since both assess for similar crime indices and use a similar scoring method (Liebling, 2006). The PRCS is often provided with the FCS due to the complementary nature of both instruments in measuring fear. The PRCS is often used to assess cognitive processes related to fear of crime, while the FCS measures one's emotional response to fear of crime (Liebling, 2006). The PRCS is an appropriate measure to provide with the FCS due to the potential impact of perceived risk on fear of crime. Meaning fear of crime can depend upon a person's perceived risk of being a victim of a crime (i.e., perceived

risk of being a victim of a crime may provoke a strong fear response or vice versa) (Liebling, 2006).

PRCS indices and scoring. The PRCS consists of 10-items rated on a 11-point Likert scale (i.e., 0 = "Not Afraid At All" to 10 = "Very Afraid") (see Appendix M; Liebling, 2006). The instrument measures three different indices of the perceived risk of victimization: general risk, personal crime risk, and property crime risk. The higher the rating or score for each indices indicates, the higher the perceived risk of being the victim of a crime (Liebling, 2006). Like the FCS, scoring three composite indices of perceived risk is derived from summing each risk item. The overall score is for each indices was as follows: Personal crime risk is the sum of the 4-personal offenses (i.e., items 4, 5, 6, and 7), ranging from 4 to 40-points; and Property crime risk score is the sum of the 5-property offenses (i.e., items 2. 3, 8, 9 and 10), ranging from 5 to 50-points (Liebling, 2006). An overall score of a person's general perceived risk of crime will be gained by summing all 10-items, ranging from 0 to 100-points (i.e., PRCS Score 1 + PRCS Score 2 + PRCS Score 3 +, etc. = Total PRCS Score), which can range from 10 to 100-points. The higher the overall perceived risk of crime score (i.e., from 0 to 100), the greater the person's perception of perceived crime risk. See Appendix M for the complete instrument.

Reporting PRCS score and central tendencies. Similar to FCS, the total score of the PRCS was calculated and reported in the results section. Central tendencies of the individual indices (i.e., personal crime risk and property crime risk) were calculated and reported. However, since the study looks at the participant's fear of crime as a whole, the indices' individual findings were briefly reported in Chapter 4 (i.e., Results section). Additionally, any significant findings for the three indices and any inference from those findings were discussed in the Discussion chapter (i.e., Chapter 5). The same was done for the perceived self-efficacy scale (PSES) results.

Cronbach alpha. The internal consistency reliability coefficients for each of the indices are as follows: general risk at 0.87, personal crime risk at 0.87, and property risk is 0.77, respectively (Liebling, 2006). The overall Cronbach alpha for the PRCS is 0.87, with the correlation between personal crime risk and property crime risk being 0.65 (Liebling, 2006; Melde, 2007). The correlations between the two risk indices indicate that the instrument demonstrates good face validity and appropriate discriminant validity (Liebling, 2006). Thus, both the PRCS and the FCS have strong internal consistency when provided together.

Total Fear of Crime Score (TFCS)

Calculating a total score using FCS and PRCS. A total fear of crime score was calculated using the total FCS and PRCS scores to answer the study's research questions. Using the FCS and PRCS score to report on a person's overall fear of crime is precedent by Chadee and Ditton, 2003; Chadee et al., 2007; Chadee and Ng Ying, 2013; Chadee et al., 2016; Chadee et al., 2017a; Chadee et al., 2017b; Chadee et al., 2019; Liebling, 2006; Melde, 2007, respectively. An overall total score was calculated by summing the total score of the FCS with the total score of the PRCS, ranging from 0 to 200 (i.e., Total FCS Score + Total PRCS = Total Fear of Crime Score)), which can range from 0 to 200-points. The justification for summing the total scores of both instruments (rather than gaining an average) is based on the focus of each measure. The FCS focuses on assessing a person's fear of experiencing crime, which is inherently an assessment of an emotional state. The PRCS assesses a person's perceived risk of experiencing crime, a psychological state. Therefore, summing the total score of the two instruments provides a complete depiction of the person's overall fear of crime.

Summing the total score of the two scales (i.e., FCS and PRCS) in this manner is also precedent by Chadee and Ditton, 2003; Chadee et al., 2007; Chadee and Ng Ying, 2013; Chadee

et al., 2016; Chadee et al., 2017a; Chadee et al., 2017b; Chadee et al., 2019; Liebling, 2006; Liebling, 2006. Thus, the higher the total fear of crime (i.e., 0 to 200), the greater the person's fears of being the victim of a crime. The FCS and PRCS scales were given at Time 1 or beginning (pre) of the group sessions and at Time 2 or end (post).

Self-Efficacy Instrument

Perceived Self-Efficacy Scale (PSES)

The study used the Perceived Self-Efficacy Scale (PSES) developed by Ozer & Bandura (1990) to measure the participant's overall self-efficacy (see appendix N). The perceived self-efficacy scale created by Ozer and Bandura (1990) consists of 37-items, rated on an 11-point Likert scale. The present study used 26-items from the scale to evaluate three self-efficacy domains: Interpersonal Self-Efficacy, Activities Self-Efficacy, and Self-Defense Self-Efficacy. The 11-items not included from the original 37-items were questions that assess Activities Self-Efficacy. However, many of the activities outlined in these eleven questions (i.e., going out in the community, going out to the movies, being in crowds) were not appropriate to evaluate due to COVID-19 restrictions. The activities questions involved pre-COVID leisure activities the older adult population had not engaged in due to practicing social distancing and stay-at-home restrains. Therefore, these eleven items were removed. The following is an overview of each PSE sub-scale.

PSE subscales. Six items (i.e., questions 1-6) were used to assess the participant's self-efficacy with engaging in various activities regarding the Activities Self-Efficacy domain. Activities assessed by the instrument range from exercising outside, hiking outside, or attending events. The Interpersonal Self-Efficacy domain consists of eight items (i.e., questions 7-14) used to assess the participant's ability to handle specific social threats. Specifically, the interpersonal

domain examined the self-efficacy of handling intimidating situations at work, school, and public social settings. The Self-Defense Self-Efficacy domain consists of 12-items (i.e., questions 15-26) assessing an individual's perceived self-efficacy or ability to respond to potentially threatening situations by strangers and acquaintances. Each question from the subscales contained three to eleven sub-items each.

Scoring. An 11-point Likert scale was used to rate each item within each domain. To obtain a score for each type of self-efficacy subscale (e.g., interpersonal SE, activity SE, and self-defense SE), the sub-items are summed, then divided by the total number of questions. The final self-efficacy score for each type of self-efficacy provided a total PSE score of the participant's overall SE. The higher the SE score, the greater the self-efficacy reported by the participants. The total score provided insight into the participant's overall SE and change over time. The PSES was given at the beginning (pre, Time 1) and end (post, Time 2) of the sessions. See Appendix N for the entire instrument.

Cronbach alpha. The Cronbach coefficient alpha of the three subscales (i.e., interpersonal SE, activities SE, and self-defense SE) ranges from 0.88 to 0.97. The following is the Cronbach alpha for each. The Cronbach alpha for the interpersonal SE scale is reported at 0.88. For the activities SE scale, the Cronbach coefficient alpha is 0.96. With the Cronbach coefficient alpha of the self-defense SE scale at 0.97. The total Cronbach alpha of the PSES is calculated to be 0.94.

Sum of Perceived Self-Efficacy Score

Sum of PSE and central tendencies. Similar to FCS and PRCS, an overall total score for PSES was calculated and used to answer the research questions. Calculating a total score for perceived self-efficacy is supported by Bandura's (2006) Guide for Constructing Self-Efficacy

Scales. Per Bandura (2006), not only should the items of a SE scale assess the same domain(s) of efficacy, the scale itself should have 'face validity (i.e., measure what it purports to measure). The overarching theme of the present study focuses on one's self-efficacy with managing one's "safety" as it relates to fear of crime. Specifically, the study seeks to see if increasing one's SE with addressing or handling potentially threatening situations decreases their overall fear of crime. The PSES domains (i.e., interpersonal SE, activities SE, and self-defense SE) align with this aim by evaluating a person's perceived self-efficacy in handling threatening situations in various settings. By calculating and reporting the summed score for PSES, the researcher uses the scale to measure the older adult's overall perceived self-efficacy. Therefore, the PSES as a whole meets Bandura's criteria for each domain and face validity.

An overall summed score was calculated by summing the total score for Activities SE, the total score for Interpersonal SE, and the total score for Self-Defense SE, and then dividing by 26 (i.e., (Total Activities SE Score + Total Interpersonal SE Score + Total Self-Defense SE Score)/ 26 = Sum of Perceived Self-Efficacy Score). The central tendency of the three subscales (i.e., activities SE, interpersonal SE, and self-defense SE) was reported briefly in the results section (i.e., Chapter 4). However, any significant findings from these individual subscales were be discussed in further detail in Chapter 5 (i.e., the Discussion chapter) and any implications associated with the results. However, to answer the research questions, the total PSES score from both groups was evaluated to determine any change over time in the participant's overall self-efficacy.

Self-Defense Skills Instrument

Self-Defense Proficiency Skills Test (SDPST)

A Self-Defense Proficiency Skills Test (SDPST) contains 12-skills or items, ranging from basic to moderately-advanced self-defense skills outlined in the self-defense curriculum. The SDPST was developed and used in a prior self-defense study precedent by Sanders (2014) and Sanders and Murray (2018). The SDPST purpose of the instrument was to assess the skill acquisition and progress of the participants in the treatment group receiving self-defense training. See Appendix K for the instrument. The SDPST assessed three components of self-defense skills: speed, accuracy, and effectiveness.

Speed in seconds. The SDPST evaluated how fast a participant completes a self-defense skill or combo of skills in seconds (s) to assess speed in seconds. To determine the speed of the skill in seconds, a participant will be asked to complete the eleven skills on the SDST. The speed at which a participant completes the skill or combo will be recorded in seconds (s). Participants were given at least two tries to complete the skill if they could not initially demonstrate it. Each skill's time in seconds (s) was on a 5-point Likert scale, from 0 = Unmet to 4 = Very met. Those who performed the skill in the following seconds obtained the subsequent score: 0 = >1 minute, 1 = 59 – 40 seconds, 2 = 39 – 30 seconds, 3 = 29 – 20 seconds, and 4 = <19 seconds. An average of the participant's overall speed was gained by adding up the twelve ratings and dividing the total by twelve (i.e., (Speed Score 1 + Speed Score 2 + Speed Score 3 +, etc.)/12 = Total Rating for Speed). The higher the score, the greater the speed in performing the self-defense skill or technique. In contrast, a smaller score would indicate a slower performance in demonstrating self-defense skills.

Accuracy. To assess *accuracy*, the SDPST examined how accurately the participant was striking, hitting, or blocking the intended mark. For instance, if the self-defense skill being evaluated is a combination of a block followed by a punch. The combo aims for the participant to block an assailant's punch and counter by punching the assailant in the nose. Accuracy is then determined by how exact the participant demonstrates blocking the imaginary attack (i.e., blocking an assailant's punch) and following up with a punch to the assailant's nose. Participants were given two chances to demonstrate the skill during the test. Using a 5-point Likert scale, with 0 = Unmet to 4 = Very met, the participant will be given an accuracy score for each skill tested. Once the accuracy scores for all twelve skills had been recorded, an overall score was gained. The overall score will be obtained by adding all twelve accuracy scores and dividing the total by twelve, ranging from 0 - 48 (i.e., (Accuracy Score 1 + Accuracy Score 2 + Accuracy Score 3 +, etc.)/ 12 = Total Accuracy Score). The higher the total score, the greater the accuracy of the self-defense skill demonstrated by the participant.

Effectiveness. The SDPST also evaluated the effectiveness or effectiveness of the participant in executing the intended skill. For instance, the participant again was asked to demonstrate a self-defense skill or combo to determine effectiveness. For example, if the participant was asked to demonstrate grab defense or break free from an assailant grabbing them. Then, how effective or quickly and efficiently the participant could demonstrate the grab defense technique indicated the effectiveness of the skill. Effectiveness will be measured using a 5-point Likert scale. The Likert scale ranges from 0 = Unmet to 4 = Very met, and the higher the score indicates, the greater the effectiveness demonstrated by the participant. Like the procedures for measuring speed in seconds and accuracy, participants were given two chances to demonstrate the skill or combo. Each time the participant's effectiveness was scored. Once all twelve scores

had been obtained, an overall score was calculated by adding up the scores and dividing by twelve, ranging from 0 - 48 (i.e., (Effectiveness Score 1 + Effectiveness Score 2 + Effectiveness Score 3 +, etc.)/ 12 = Total Effectiveness Score). The higher the score, the greater the effectiveness of the self-defense skill.

Total SDPST Score and Central Tendencies

A total score for the SDPST was calculated and analyzed. A total score will be obtained by adding up the total sum of each SDPST component (i.e., speed, accuracy, and effectiveness) and dividing the summed component scores by twelve (i.e., (Total Summed Score for Speed + Total Summed Score for Accuracy + Total Summed Score for Effectiveness)/12 = Total SDPST Score). The results of the total SDPST score and the central tendencies of the individual components (i.e., speed, accuracy, and effectiveness) were reported in the results section (i.e., Chapter 4). Any significant findings for the three components were discussed in Chapter 5 (i.e., Discussion chapter). Reporting any significant findings allowed the researcher to consider implications for future research or other factors contributing to the study's findings.

Additional Instrumentation

Demographic Questionnaire

Background information was obtained for each participant of both groups. The demographic questionnaire consisted of 18-questions derived from a previous study (i.e., Sanders, 2014; Sanders & Murray, 2018; see Appendix O). The basic demographic data collected focused on facts like the participant's age, gender, race, marital status, education, retirement status, previous occupation, and hours/years worked in their last occupation. The questionnaire also assessed the participant’s comfort level with discussing safety topics and crime, prior experience of being a survivor of a crime, previous group counseling experience,

and martial arts and self-defense training. The questionnaire further inquired about and gauged if the participant met the inclusion criteria for technology. The purpose of gaining demographic information was to gain additional insight into the older adult participants being studied. Specifically, the current study used this information to evaluate and discuss the implication of the study's findings and how those findings might relate to the age group. The demographic questionnaire was only provided at Time 1(pre) or the beginning of the study. See Appendix O for the demographic questionnaire.

Physical Readiness Questionnaire for Everyone (PAR-Q+)

The Physical Activity Readiness Questionnaire for Everyone (PAR-Q+) is a self-administered physical activity assessment tool (see Appendix P; Eparmedx.com, 2021; Warburton, 2011). The PAR-Q+ was introduced in 2010 by Drs. Darren Warburton, Norman Gledhill, Veronica Jamnik, and Shannon Bredin at the 3rd International Congress on Physical-Activity and Public Health Toronto, Ontario, Canada (Eparmedx.com, 2021; Warburton, 2011). The PAR-Q+ was meant to be completed before beginning an exercise or physical activity to assess an individual's readiness to engage in an activity (Eparmedx.com, 2021; Warburton, 2011). The purpose of the PAR-Q+ was to determine and inform the individual if they need to seek medical advice before engaging in the chosen new exercise or physical activity (Eparmedx.com, 2021; Warburton, 2011).

The PAR-Q+ consisted of seven questions (e.g., 7-items) requiring the respondent to answer 'yes' or 'no' to the questions (Eparmedx.com, 2021; Warburton, 2011). If respondents answered 'no' to all seven questions, they were cleared to participate in physical activity (Eparmedx.com, 2021; Warburton, 2011). If the respondent said 'yes' to any of the questions, they were asked to complete an additional 10-questions containing three to five sub-questions

each (Eparmedx.com, 2021; Warburton, 2011). If the respondent said ‘no’ to these follow-up questions, they were cleared to engage in physical activity (Eparmedx.com, 2021; Warburton, 2011). However, if the respondent said ‘yes’ to one of the follow-up questions, the respondent would need to consult with a medical professional before engaging in any physical activity (Eparmedx.com, 2021; Warburton, 2011). The PAR-Q+ also contained a ‘participation declaration’ section after the seven initial questions and at the end. By signing and dating the declaration, participants confirm they have truthfully answered the questions, understood the assessment outcome (i.e., cleared to participate or seek medical advice), and attest to the assessment findings (Eparmedx.com, 2021; Warburton, 2011). For potential participants to be eligible to participate in the study, they must pass the PAR-Q+ for clearance. Suppose they answer ‘yes’ to any of the seven initial or follow-up questions. Appendix P provides the total instrument and instructions for completing the PAR-Q+.

Weekly Group Check-In Survey

A weekly group check-in survey was developed for the present study consisting of 11-questions. The aim of the weekly check-in was to evaluate the well-being of the participants (i.e., emotional, mental, and physical) on a weekly basis. See Appendix F. The weekly group check-in survey consisted of 11-questions and allowed participants to provide insight into what they were learning and ask questions. The questionnaire included questions such as: “Since the last session, have you used the psychoeducation safety information discussed?” and “Since the last session, did any new concerns, thoughts, or questions come up regarding your safety (i.e., personal safety, community safety, or home safety)?” The purpose of the check-in was to enable participants to express in written form any thoughts, feelings, or concerns that have arisen since the last group session. The weekly check-in further allowed the researcher to determine if

participants apply what they are learning, the psychoeducation safety information, or self-defense training. Finally, the check-in assessed whether or not participants were physically practicing any of the self-defense techniques being learned by the treatment group. The weekly check-in survey was provided at the end of each session and before the next one. The information obtained was evaluated, and any implications were discussed in Chapter 5 (i.e., the Discussion chapter). See the weekly group check-in procedures in the procedure section, and Append E for the complete instrument.

Satisfaction & Technology Questionnaire

The following satisfaction and technology questionnaire was developed for the present study. The questionnaire consisted of 13 questions, 10-quantitative questions, and 3-qualitative questions. The 10-quantitative questions were rated on a 5-point Likert scale, from 0 = 'Not at all' to 5 = 'Quite a lot.' These eleven questions examined the participant's satisfaction with the study approach (i.e., being provided virtually online versus in-person), their use of technology since engaging in the study, and how the information impacted their view of safety and self-defense. The three qualitative questions asked the participants to provide details, such as what they liked about the study, learned from participating, and any technology used. The questionnaire also assessed whether the participant's use of technology has increased and what type of technology (i.e., cell phones, tablets or iPads, Website searches, texting, or emails). The questionnaire was provided at Time 2 or the end (post) of the last group session. The questionnaire was included with the other instruments issued at Time 2 and provided through Qualtrics. The satisfaction and technology survey results were provided in Chapter 5 (i.e., the Discussion section). See Appendix Q for the entire questionnaire.

The study used SPSS to analyze the data obtained from the instruments (i.e., FCS, PRCS, and PSES) and the demographic questionnaire. Prior approval for each measuring tool outlined was acquired through the University Internal Review Board (IRB).

Data Collection

Pretest-Posttest Design

A pretest-posttest design was used to collect data. Participants from the treatment and comparison groups were assessed using the measures and instruments at two different times, pre (Time 1) and post (Time 2) the group intervention. Specifically, before the first psychoeducation group session of both groups (i.e., treatment group and comparison group), participants were asked to complete the following assessments: demographic questionnaire, physical activity readiness questionnaire for everyone (PAR-Q+), Perceived Self-Efficacy Scale (i.e., PSES), Fear of Crime Scale (i.e., FCS), and Perceived Risk of Crime Scale (i.e., PRCS). The treatment group was also provided the self-defense proficiency skills test (SDPST). The same assessments (i.e., FCS, PRCS, PSES, SDPST), minus the demographic questionnaire and PAR-Q+, were provided again at the end of the last psychoeducation session. Additionally, participants were asked to complete a satisfaction and technology questionnaire.

Since the following study utilizes a quasi-experimental design, a pretest-posttest design was appropriate to measure the participant's self-efficacy and fear of crime before and after engaging in the study. A pretest-posttest design is often used to strengthen the internal validity (Field, 2009; Moore et al., 2009; Trochim, 2006). An overview of the statistical analysis approach will now be discussed.

Statistical Analysis

The Pre-Post data gained during the six-week study to examine the treatment versus comparison group's self-efficacy and fear of crime was analyzed using Repeated Measures of ANOVA and simple linear regression. Repeated Measures of ANOVA (RM ANOVA) analysis allows the researcher to examine within-subject variation and between-subject variation to answer the first four research questions. A simple regression analysis was conducted to answer the final two research questions (i.e., research questions 5 and 6). An overview of the RM ANOVA analysis and the simple regression analysis will be discussed.

Two-way Repeated Measures of ANOVA (RM ANOVA).

Group by Time (Group*Time) analysis approach was used for the data collected from the self-efficacy scale and fear of crime questionnaires. Specifically, a 2 (Group) by 2 (Time) Repeated Measures (RM) of ANOVA analysis was used for two purposes. One, to see if any relationship existed between the two groups, and secondly, to see if there was any statistically significant difference between the groups. The two intervention groups: psychoeducation group counseling only along with the augmented psychoeducation group counseling and self-defense group, are the two independent or outcome variables. Self-efficacy and fear of crime are the two dependent or predictor variables. Ultimately, the 2(Group) by 2(Time) RM ANOVA was used to determine whether there was a statistically significant difference between the treatment group and the comparison group regarding raising self-efficacy and reducing fear of crime and perceived risk in older adults. The results of the RM ANOVA have been provided in Chapter 4 (i.e., the Results section).

Assumptions of RM ANOVA

A few assumptions made upon analyzing the RM ANOVA data were three-fold. First, an assumption of independent observations or independent and identically distributed variables is noted (Moore et al., 2009; Trochim, 2006). The Independent variables assumption assumes that observations must be independent within each treatment condition (Moore et al., 2009; Trochim, 2006). The second assumption noted is the assumption of normal distribution. The variables are normally distributed, or population distribution is normal within each treatment (Moore et al., 2009; Trochim, 2006). Lastly, the assumption of sphericity is noted, meaning the population variance of the different scores or variances of the population distribution is equal (Moore et al., 2009; Trochim, 2006). Mauchly's test was used to test for sphericity amongst the studied population (Moore et al., 2009; Trochim, 2006).

Simple Linear Regression Analysis

A simple linear regression is a statistical analysis used to examine the relationship between two quantitative (continuous) variables (Trochim, 2006). One variable is the independent or "predictor" variable, and the other is the dependent or "response" variable (Trochim, 2006). The regression analysis was conducted to determine if a 'deterministic' relationship exists between self-efficacy (i.e., predictor variable) on total fear of crime (i.e., criterion variable). Before conducting the regression analysis, a 'change-score' was calculated for perceived self-efficacy and total fear of crime. To do this, the pre-test scores were subtracted from the post-test scores. For instance, to obtain a 'change-score' for the sum of perceived self-efficacy (PSE), the pre-test scores for the Sum of PSE were subtracted from the post-test scores for the Sum of PSE. The same was done for the Total Fear of Crime scores (i.e., pre-test scores subtracted from the post-test scores). Once a change score was obtained, an initial exploratory

analysis was conducted. The purpose of conducting the exploratory analysis was to evaluate if there was any skewness within the data. After assessing the data for skewness, a simple linear regression was performed. The change score for the sum of PSE was designated the independent variable (i.e., predictor variable). The change score for the sum of PSE was designated as the dependent variable (i.e., criterion variable). The final regression analysis provided the statistical relationship between the two variables and whether PSE predicted or 'explained' total fear of crime. The statistical findings for the regression analysis were reported in the results section (i.e., Chapter 4).

Assumptions of Regression Analysis

Like the RM ANOVA, several assumptions of linear regression must be considered. The first assumption is the assumption of a linear relationship. The assumption of linear relationship or linearity states the relationship between X along with the mean of Y is considered linear (Boston University School of Public Health, 2016; Trochim, 2006). The second assumption is the assumption of multivariate normality. The assumption of multivariate normality assumes Y is normally distributed for the fixed value of X (Boston University School of Public Health, 2016; Trochim, 2006). The third assumption is the assumption of little to multicollinearity. The assumption of little to multicollinearity states the correlation between the independent variables is little to none (Trochim, 2006). The fourth assumption is the assumption of homoscedasticity. The assumption of homoscedasticity states the variance is the same for the value of X (Boston University School of Public Health, 2016; Trochim, 2006). A fifth and final assumption is the assumption of independence, which is all the observations are considered independent of one another (Boston University School of Public Health, 2016; Trochim, 2006).

Additional Analyses

In addition to the RM ANOVA and linear regression, the central tendencies of the subscales for the FCS, PRCS, PSES, and SDPST were calculated and analyzed. A descriptive analysis and the RM ANOVA provided descriptive statistics (i.e., mean and standard deviation) for the indices/subscales. Any significant findings noted from the central tendencies of the subscales were discussed in Chapter 5 (i.e., Discussion chapter). A paired-samples t-test and descriptive analysis were used to evaluate the treatment group's Self-Defense Proficiency Skills Test (SDPST) data. The pairwise samples t-test analysis evaluated the pre-and-post-SDPST data and determined any change in the treatment group's self-defense skills.

A descriptive analysis was also used to analyze the demographic information from both groups. The goal of evaluating the demographic data was to gain a general overview of the study population and any participant differences between the two groups. To determine any statistical significance, an independent samples t-test was used to analyze the mean scores of the study's two groups pre (Time 1) and post (Time 2). SPSS was the statistical analysis platform used to perform the overall data analysis. The results of the SPSS analyses are discussed in the results section in Chapter 4 (i.e., the Results chapter).

Chapter Summary

Through the design and methods of the present study, the researcher examined the benefits of an augmented psychoeducation group counseling and self-defense program on an older adult's self-efficacy and fear of crime. The researcher evaluated a treatment group receiving the augmented psychoeducation group counseling and self-defense training approach. The researcher then assessed the treatment group results in a comparison group, receiving only psychoeducation group counseling. The population being studied is older adults, 55-years of age

and older. The study's interventions were provided to participants remotely online through Cisco WebEx. All consents and assessments were provided through Qualtrics. The consent form, screener documents, and first set of assessments were given before the first group session. Participants were randomly assigned to either the treatment or comparison group. Once assigned to a group, the group session commenced. Each group met remotely online once a week for a total of six weeks.

The length of each group session was 60-minutes. The treatment group engaged in psychoeducation group counseling for 30-minutes, followed by self-defense training for 30-minutes, for a total of 60-minutes. In contrast, the comparison group received only psychoeducation for the full 60-minutes. The participant's self-efficacy, fear of crime, and perceived risk were measured at the beginning of the first session and the end of the final and sixth session. The treatment group participants were assessed for any changes in self-defense skill acquisition through a skills test. Participants of both groups were provided a weekly check-in survey to provide insight into their growth over the six-week period. At the end of the study, participants were provided a satisfaction and technology survey and given a chance to share thoughts about their study experience. The overall design of the study is a pretest-posttest design. The pre and post-data for fear of crime, perceived risk, and self-efficacy were analyzed using two-by-two repeated variance analysis and simple linear regression. Any statistically significant information gained from the self-defense skills test, weekly check-in survey, and satisfaction and technology survey was discussed in Chapter 5 (i.e., Discussion chapter).

The overall aim of the present study is to ascertain the effects of an augmented counseling approach. Specifically, evaluate if an augmented approach significantly affects a person's self-efficacy towards self-protection and reduces fear of crime, compared to someone

receiving only psychoeducation group counseling. The study aims to contribute to the current knowledge base and fill a void within research regarding fear of crime and self-efficacy to address crime among older adults.

CHAPTER IV: RESULTS

Introduction

The present study sought to examine if augmenting psychoeducation group counseling with self-defense training would statistically influence an older adult's perceived self-efficacy and fear of crime. Studying aimed to determine if an augmented approach that included a physical intervention led to more significant outcomes than a non-augmented approach (i.e., psychoeducation group counseling only approach). The study results were used to address the study's four research questions. These six researchers examined if augmented versus non-augmented led to greater self-efficacy and decreased overall fear of crime. The research questions also evaluated whether self-efficacy was an influential factor in changing the participant's fear of crime. Beyond these research questions, the present study assessed any change in the treatment group's self-defense skills, insight into the weekly check-in surveys, and any satisfaction and technology survey findings. The following analyzes the participant's experience with a violent and non-violent crime.

Crime Results

Total Participants' Reported Experience

Violent crime experience. Demographic data provided insight into the participant's experience with violent and non-violent crimes. An evaluation of the participant's experience with violent crime (i.e., physical assault, sexual assault, domestic violence, rape) noted that the majority (n = 24, 70.6%) reported no experience of being a survivor of a violent crime. Of those who report being the survivor of a violent crime (n = 10, 29.4%), three reported experiencing physical assault (8.8%) and three domestic violence (8.8%), respectively. Two participants

reported experiencing sexual assault, and one reported 'other' without further clarification. Only one participant stated they did not wish to answer the question about the type of violent crime

Non-violent crime experience. Regarding the participant's experience with non-violent crime (i.e., robbery, general robbery or burglary, household robbery, auto theft, vandalism). Over half of the participants (n = 18, 52.9%) reported being survivors of a non-violent crime. The majority reported being the survivor of household robbery (n = 5, 23.5%), robbery (n = 4, 11.8%), and vandalism (n = 3, 8.8%). At least two reported being a survivor of more than one type of non-violent crime, and only one wished not to answer. The participant's experience with a violent and non-violent crimes has been provided in Table 12.

Treatment group's crime experience. ***Violent crime experience.*** Examining the treatment group's experience with violent crime, a majority (n = 13, 76.5%) reported no violent crime experience. Only four participants reported being a survivor of crime. Two participants reported surviving physical assault, and two were survivors of domestic violence. ***Non-violent crime experience.*** Of the seventeen participants in the treatment group, over half (n = 9, 52.9%) reported no experience with a non-violent crime. Of the seven participants (41.2%) who reported being survivors of a non-violent crime, most (n = 4, 23.5%) were survivors of household robbery. Other non-violent crime types experienced were robbery, general robbery/burglary, and vandalism (See Table 12).

Comparison group's crime experience. ***Violent crime experience.*** Similar to the treatment group participants, most comparison group participants (n = 11, 64.7%) had no experience with violent crime. Of the six participants (35.3%) who had experienced violent crime, two reported past experiences with sexual assault, one with physical assault, and one with domestic violence. Only two stated 'other' without specification or chose not to answer.

Non-violent crime experience. Most participants in the comparison group (*n* = 11, 64.7%) had experienced a non-violent crime. Of the type of non-violent crime experienced, three reported being a survivor of robbery (17.6%), two vandalism (11.8%), and one household robbery (11.8%). Two participants experienced more than one type of non-violent crime, and two stated other (i.e., breaking and entering auto theft and attempted robbery). Only one participant wished not to answer (See Table 12). After evaluating the participant's past experience with violent and non-violent crime, the results of engaging in the six-week study are provided.

Table 12

Demographic Data Frequencies for Each Group's Experience with Crime

	Treatment Group (*n* =17)		Comparison Group (*n* = 17)		Total Sample (*N* =*34*)	
Demographic Variable	n	%	n	%	n	%
Survivor of a violent crime						
Yes	4	23.5%	6	35.3%	10	29.4%
No	13	76.5%	11	64.7%	24	70.6%
Wish not to answer	0	0%	0	0%	0	0%
Type of violent crime						
Physical assault	2	11.8%	1	5.9%	3	8.8%
Sexual assault	0	0%	2	11.8%	2	5.9%
Domestic violence	2	11.8%	1	5.9%	3	8.8%
Other	0	0%	1	5.9%	1	2.9%
Wish not answer	0	0%	1	5.9%	1	2.9%
Survivor of a non-violent crime						

Yes	9	52.9%	11	64.7%	18	52.9%
No	7	41.2%	6	35.3%	15	44.1%
Wish not to answer	1	5.9%	0	5.9%	1	2.9%
Type of non-violent crime						
Robbery	1	5.9%	3	17.6%	4	11.8%
General robbery/ Burglary	1	5.9%	1	5.9%	1	2.9%
Household robbery	4	23.5%	2	11.8%	6	17.6%
Vandalism	1	5.9%	2	11.8%	3	8.8%
Other	0	0%	1	5.9%	2	5.9%
More than one type	0	0%	2	11.8%	2	5.9%
Wish not answer	0	0%	0	0%	1	2.9%

Note: Table 12 provides the participant's responses on experience with violent and non-violent crime and the type of crime if experienced.

Total Fear of Crime and Perceived Self-Efficacy Analysis

The demographic survey findings indicated that most participants had been survivors of a non-violent crime versus a violent crime. The present study sought to answer four research questions evaluating an augmented approach on an older adult's fear of crime and perceived self-efficacy. Therefore, after gaining insight into the participant's past experience with crime, the next step would be to determine if the six-study had any statistically significant findings. The data collected, pre (Time 1) and post (Time 2), by the treatment and comparison groups were analyzed using a 2 (Group) by 2 (Time) RM ANOVA and Linear Regression. The results of the data analysis were used to answer each research question.

Research Question 1: Sum of Perceived Self-Efficacy

A descriptive statistical analysis of the sum of the Perceived Self-Efficacy Scale (PSES) scores, with higher scores indicating greater self-efficacy (SE). An analysis revealed the total sample reported a low level of confidence or SE (M = 30.47, SD = 8.50) in dealing with unsafe

or threatening situations at pretest (Time 1). The treatment group (M = 30.82, SD = 7.79) and comparison group (M = 30.12, SD = 9.39) reported similarly low levels of SE upon pretest. At posttest (Time 2), the total sample increased (M = 41.71, SD = 9.06) in SE from the pretest. The treatment group (M = 43.94, SD = 5.70) reported a slightly higher confidence levels or SE than the comparison group (M = 39.47, SD = 10.76) at posttest (Time 2). An independent samples *t-test* was used to analyze if the group differences at Time 1 (Pretest) and Time 2 (Posttest) were statistically significant. The analysis did not reveal a statistically significant effect for group at Pretest (Time 1) [$t(32) = .813$, $p = .476$] or at Posttest (Time 2) [$t(32) = 1.463$, $p = .154$]. Table 13 provides an overview of the mean scores for the sum of perceived self-efficacy for each group.

A 2(Group) by 2(Time) RM ANOVA of the sum PSES scores was conducted to evaluate the interaction for group by time. The analysis revealed no statistical significant interaction for group by time [$F(1, 32) = 1.25$, $p = .272$, partial $\eta^2 = .04$]. The results indicate that one group did not experience a greater increase in perceived self-efficacy for one group over the other, from Time 1 (pretest) to Time 2 (posttest). Instead, regardless of the method, the augmented psychoeducation group counseling and self-defense group (i.e., treatment group) and psychoeducation group counseling only group (i.e., comparison group) experienced an increase in self-efficacy regardless.

The results did reveal a statistically significant main effect for *time* [$F(1,32) = 44.51$, $p < .001$, partial $\eta^2 = .58$]. The results indicated that the six-week groups, regardless of type (i.e., treatment versus comparison group), had a statistically significant effect on the participant's self-efficacy. Over time, both groups increased confidence in addressing and handling various

situations, especially unsafe ones. Graph 1 provides an overview of the RM ANOVA group by time interaction.

Table 13

Sum of Perceived Self-Efficacy for Each Group

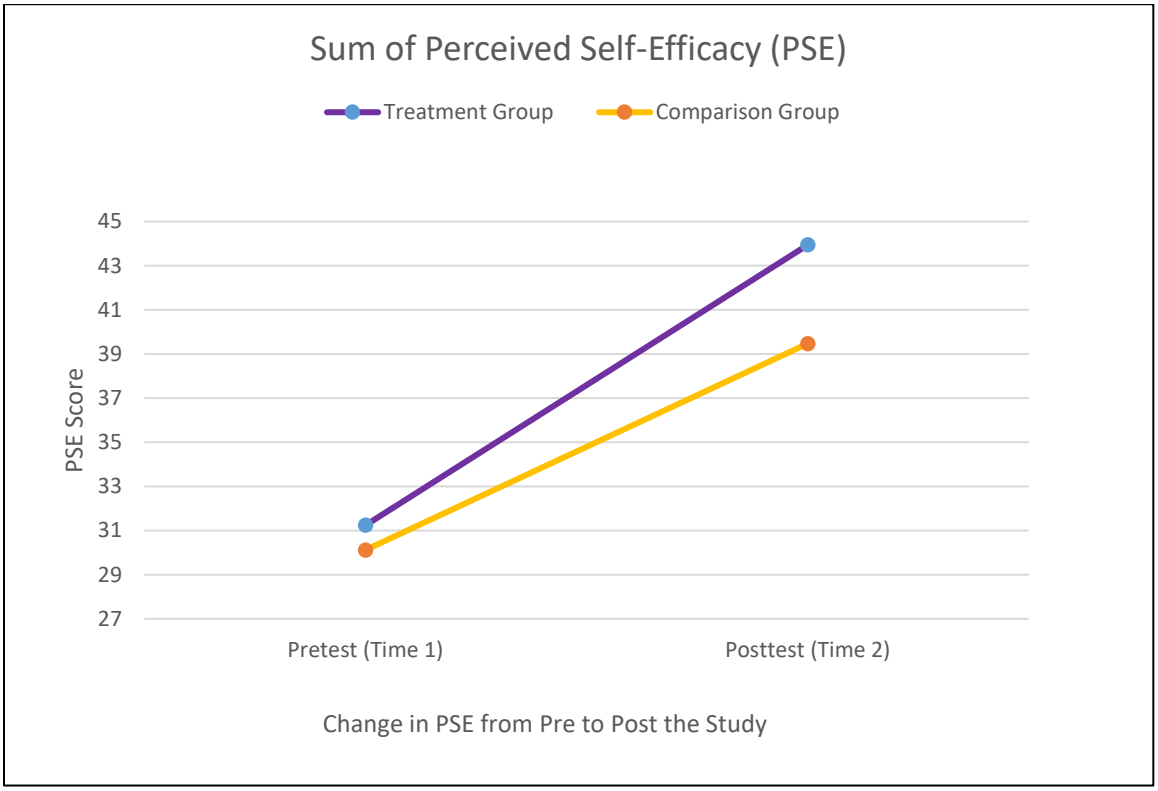
	Treatment Group[a]		Comparison Group[b]	
Measure	M	SD	M	SD
Pretest (Time 1)	30.82	7.79	30.12	9.39
Posttest (Time 2)	43.94	5.70	39.47	10.08

Note: The higher the scores represent a higher level of self-efficacy. RM ANOVA revealed no statistically significant interaction for group by time for total self-efficacy. However, a statistically significant main effect for *time* was found at the $p < .001$ level, from pretest (Time 1) to posttest (Time 2) for both groups. Computed using $\alpha = .05$

[a]$n = 17$. [b]$n = 17$.

Graph 1

Sum of PSE for Both Groups, from Pre- (Time 1) to Post- (Time 2) the Study



Note: No statistically significant interaction was found for group by time (p = .272). Both groups reported an increase in perceived self-efficacy, regardless of approach. A statistically significant main effect for *time* was found at the $p < .001$ level. Computed using $\alpha = .05$

Analysis of PSES Subscales

An analysis of the individual PSES subscales (i.e., Activities SE, Interpersonal SE, and Self-Defense SE) was conducted. The aim of the analysis was to evaluate the individual components contributing to the participant's overall SE. In doing so, the researcher may gain statistical insight into which type of SE may have played an intrigual role based on the intervention. Table 14 provides the descriptive statistics for each of the PSES subscales.

Activities Self-Efficacy

A descriptive statistics for the Activities Self-Efficacy (SE) subscale revealed the total sample reported moderate Activities SE (M = 30.32, SD = 9.47) at pretest (Time 1). The results showed both groups (i.e., treatment and comparison group) were moderately confident with engaging in certain activities (i.e., outdoor activities, exercise, traveling, and attending social activities) before engaging in the study. The treatment group reported a slightly lower Activities SE at pretest (M = 28.76, SD = 8.11), than the comparison group (M = 31.88, SD = 10.68). At posttest (Time 2), the descriptive analysis showed both groups slightly increased in Activities SE (total sample M = 32.79, SD = 13.35) over time. The comparison group showed a slightly greater increase in Activities SE (M = 34.76, SD = 12.30) than the treatment group (M = 30.82, SD = 14.42). An independent samples *t-test* found no statistical significant effect for group at Time 1 [$t(32) = -.958$, $p = .345$] or Time [$t(32) = -.857$, $p = .398$].

A 2(Group) by 2(Time) RM ANOVA of the pre to post data for Activities SE found no statistical significant interaction for group by time [$F(1, 32) = .055$, $p = .816$, partial $\eta^2 = .002$] and no statistical significant main effect for time [$F(1, 32) = 1.986$, $p = .168$, partial $\eta^2 = .06$]. The results for Activities SE demonstrated that the participant's confidence in engaging in various activities (i.e., hiking, exercising, traveling, and engaging in social or leisure activities) was unchanged by the intervention approach (i.e., augmented or non-augmented) or length of the six-week study. Even though no statistical significance was found for the Activities SE PSES sub-scale, the other two PSES subscales (i.e., Interpersonal SE and Self-Defense SE) revealed significance.

Interpersonal Self-Efficacy

The descriptive analysis for Interpersonal Self-Efficacy (SE) showed that the total sample reported low interpersonal confidence levels (M = 24.62, SD = 5.39) at the start of the study. The results indicate that the participants possessed low self-efficacy or confidence in addressing threatening situations involving others or gaining help from others. Upon examining both groups at pretest, the treatment group reported a slightly lower interpersonal SE (M = 27.29, SD = 3.75), than the comparison group (M = 21.94, SD = 5.54). At posttest (Time 2), the total sample showed a slight increase in interpersonal SE (M = 29.85, SD = 5.43). With the treatment group (M = 31.35, SD = 3.22) reporting a slightly higher interpersonal SE at posttest, than the comparison group (M = 28.35, SD = 6.75). An independent samples *t-test* revealed a statistical significant effect for *group* at Time 1 [$t(32) = .3.298$, $p < .002$], but no statistical significant effect at Time 2 [$t(32) = 1.653$, $p = .112$].

A 2(Group) by 2(Time) RM ANOVA was also conducted to evaluate group by time. The analysis revealed no statistical significant interaction for group by time [$F(1,32) = 2.371$, $p = .133$, partial $\eta^2 = .07$]. The results indicated that the participants of one group did not experience an increase in interpersonal SE more than the other. However, the analysis did reveal a statistical significance for *time* [$F(1,32) = 46.96$, $p < .001$, partial $\eta^2 = .60$]. The findings showed the interpersonal SE of the participants was increased from engaging in the six-week program, regardless of approach. Similarly, statistical significance was found for self-defense self-efficacy.

Self-defense Self-Efficacy

The descriptive statistics for the SDSE found the total sample (M = 36.09, SD = 15.01) reported moderately low self-defense confidence levels at pretest (Time 1). An analysis of both

groups found the treatment group (M = 36.35, SD = 14.42) reported a slightly higher SDSE confidence level than the comparison group (M =35.82, SD =16.02). The findings of the descriptive analysis at the pretest suggest both groups held moderately low levels of confidence about using self-defense to protect themselves during an unsafe situation. In comparison, the descriptive analysis of the posttest (Time 2) data revealed the total sample (M = 48.79, SD = 12.73) increased in SDSE from engaging in the six-week program. Of the two groups, the treatment group (M = 55.00, SD = 7.67) reported the highest increase in SDSE, then the comparison group (M = 42.59, SD = 13.96). The independent samples *t-test* found no statistical significant effect for group at Time 1 [$t(32) = .101$, $p = .920$]. Conversely, statistical significant effect for *group* was found at Time 2 [$t(32) = 3.223$, $p < .003$].

A 2(Group) by 2(Time) RM ANOVA analysis was also conducted on Self-Defense Self-Efficacy (SDSE) scores. The RM ANOVA revealed a statistically significant main effect for *group by time* [$F(1,32) = 6.322$, $p = .017$, partial $\eta^2 = .17$]. Additionally, the analysis showed a statistically significant main effect for *time* [$F(1,32) = 28.91$, $p < .001$, partial $\eta^2 = .48$]. The analysis revealed that participants receiving self-defense training (i.e., treatment group) experienced a more significant increase in SDSE than those that did not (i.e., comparison group). The analysis showed that the participant's confidence in utilizing self-defense techniques to address unsafe or threatening situations increased after engaging in a six-week safety and self-defense program.

Table 14

Descriptive Statistics for the PSES Subscales

	Treatment Group [a]		Comparison Group [b]	
PSSE Subscales	Pretest	Posttest	Pretest	Posttest
Activities SE				
M	28.76	30.82	31.88	34.76
SD	8.11	14.42	10.68	12.30
Interpersonal SE				
M	27.29	31.35	21.94	28.35
SD	3.75	3.22	5.54	6.75
Self-Defense SE				
M	36.35	55.00	35.82	42.59
SD	14.22	7.66	6.02	13.91

Note: The higher the scores represent a higher level of self-efficacy. An RM ANOVA analysis found a statistically significant main effect for *time* for interpersonal self-efficacy at $p < .001$ from pretest (Time 1) to posttest (Time 2) for both groups. A statistically significant interaction was also found for *group by time* for self-defense self-efficacy at the $p < 0.05$ level and a statistically significant main effect for *time* at the $p < .001$ level, pre to post the study. Computed using $\alpha = .05$

[a]$n = 17$. [b]$n = 17$.

Research Question 2: Total Fear of Crime (TFCS)

To further understand the influence of the study (i.e., treatment group versus comparison group intervention), an analysis of the participant's total fear of crime was conducted. The descriptive analysis gained from the RM ANOVA of the pretest (Time 1) results revealed the total sample (M = 73.41, SD = 50.86) reported a moderate-low (i.e., under 100) overall fear of crime. Of the two groups, the treatment group (M = 106.00, SD = 51.11) reported a much higher overall moderate fear of crime. Conversely, the comparison group (M = 40.82, SD = 21.59) reported a very low fear of crime at pretest. An analysis of the posttest (Time 2) results revealed an increase in overall fear of crime for the total sample (M = 83.15, SD = 40.41). The post-test results found a reduction in overall fear of crime for the treatment group (M = 87.53, SD = 42.79). In contrast, the comparison group (M = 78.76, SD = 38.68) reported an increase in overall fear. An independent samples *t-test* revealed a statistical significant effect for group at Time 1 [$t(32) = 4.843$, $p < .001$], but no statistical significant effect for group at Time 2 [$t(32) = .627$, $p = .535$]. Table 15 provides the descriptive statistics of each group's total fear of crime.

A 2(Group) by 2(Time) RM ANOVA was conducted on the TFC Scores. The RM ANOVA revealed a statistically significant interaction was found for *group by time* [$F(1,32) = 18.60$, $p < .001$, partial $\eta^2 = .37$] between the two groups. However, no statistically significant main effect for *time* [$F(1,32) = 2.216$, $p = .146$, partial $\eta^2 = .07$] between the treatment or comparison group. The results reveal that the treatment group's overall fear of crime was reduced by participating in the six-week augmented psychoeducation group counseling and self-defense training program.

In contrast, the results also indicate the comparison group's overall fear of crime was increased from participating in the six-week psychoeducation group counseling only approach.

The RM ANOVA results for total fear of crime noted an augmented group approach (i.e., treatment group) potentially led to a reduction in fear of crime. Conversely, a non-augmented approach (i.e., Comparison group) increased the participant's fear of crime, indicating the intervention approach (i.e., augmented versus non-augmented) potentially made a difference. The group by time interaction found for total fear of crime can be viewed in Graph 2.

Table 15

Total Fear of Crime for Each Group

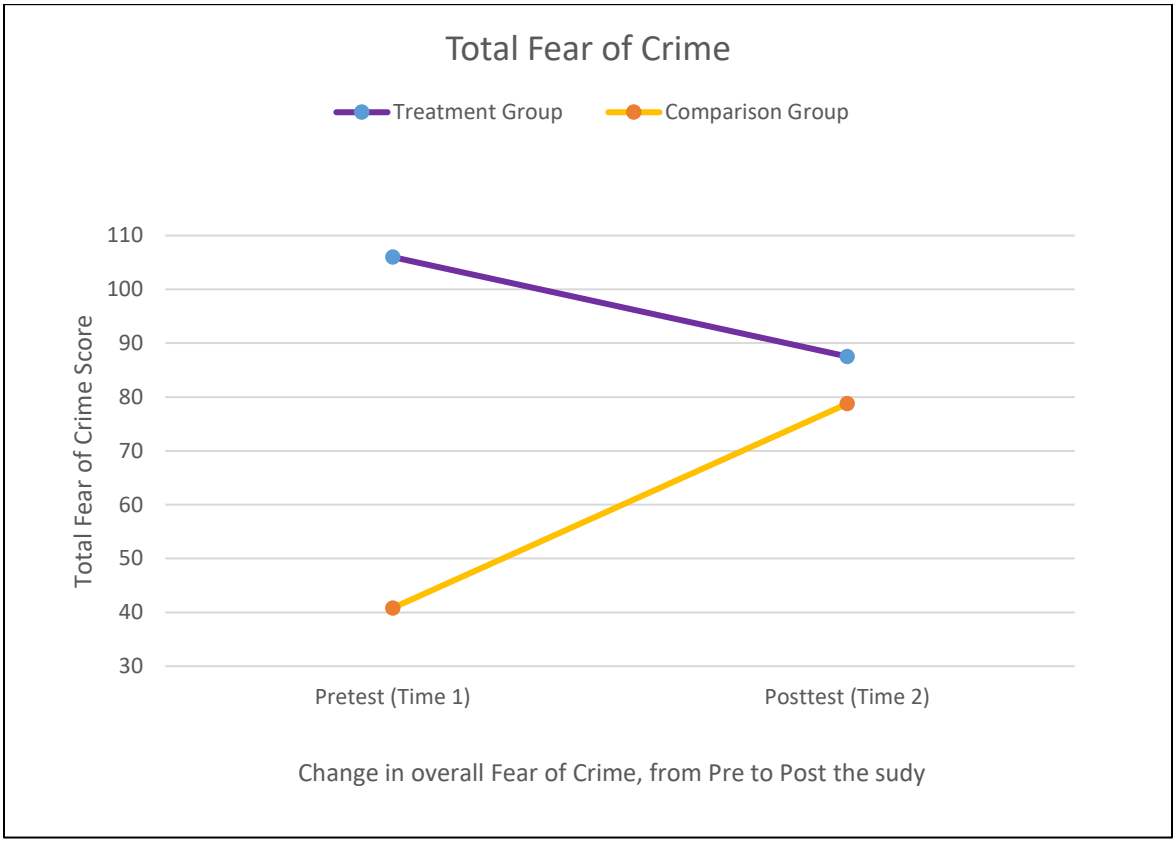
	Treatment Group[a]		Comparison Group[b]	
Measure	M	SD	M	SD
Pretest (Time 1)	106.00	51.11	40.82	21.59
Posttest (Time 2)	87.53	42.79	78.76	38.68

Note: The higher the scores represent a higher overall fear of crime. An RM ANOVA analysis revealed a statistically significant interaction for *group by time* at the $p < .001$ level. However, the analysis revealed no statistical significance main effect for time for total fear of crime. Computed using $\alpha = .05$

[a]$n = 17$. [b]$n = 17$.

Graph 2

Total Fear of Crime for Each Group, from Pre- (Time 1) to Post- (Time 2) the Study



Note: The higher the total fear of crime scores, the higher the overall fear of crime. A statistically significant interaction was found for group by time ($p < .001$). No statistically significant main effect *was found* for time ($p = .146$). Computed using $\alpha = .05$

Analysis of the Crime and Perceived Risk Scales

An analysis of the participant's Fear of Crime Scale (FCS) scores and Perceived Risk of Crime Scale (PRCS) scores were evaluated to further understand the results of the Total Fear of Crime Scores. The aim of analyzing these two scales was to see if one group differed on their

fear of crime and perceived risk than the other. The present study also sought to gain insight into whether statistical significance was found for *fear* of crime versus *perceived risk* of crime.

Fear of Crime Scale (FCS)

A descriptive analysis of the FCS scores at pretest (Time 1) revealed that the total sample (M = 53.41, SD = 27.30) reported a high fear of crime. The treatment group (M = 59.24, SD = 28.78) reported a moderately higher FCS score, than the comparison group (M = 47.59, SD = 25.23). An analysis of the post-test (Time 2) data showed that the total sample (M = 43.59, SD = 21.71) decreased in their fear of crime. The treatment group (M = 47.65, SD = 25.18) demonstrated the greatest decrease in fear of crime, compared to the comparison group (M = 39.53, SD = 17.41). The independent samples *t-test* found no statistical significant effect for group at Time 1 [$t(32) = 1.255$, $p = .219$] or Time 2 [$t(32) = 1.093$, $p = .282$]. Table 16 provides the descriptive statistics for the FCS and PRCS scales.

A 2(Group) by 2(Time) RM ANOVA showed no statistically significant interaction for group by time [$F(1,32) = .210$, $p = .650$, partial $\eta^2 = .01$]. The analysis did reveal a statistically significant main effect for *time* [$F(1,32) = 6.50$, $p < .016$, partial $\eta^2 = .17$]. The findings indicate that as both groups participated in the six-week intervention, they experienced a decline in fear of crime. The findings indicated that regardless of the intervention, both groups experienced a change in their fear of crime. Now, a discussion on the results of the RM ANOVA for the Perceived Risk of Crime Scale will be provided.

Perceived Risk of Crime Scale (PRCS)

In addition to evaluating the FCS scores, the PRCS scores were also analyzed, with scores ranging from 0-to 100 (i.e., the higher the score, the higher the perceived risk of crime). A descriptive analysis provided by the RM ANOVA showed that the total sample (M = 40.29, SD

= 24.78) reported a moderately low perceived crime risk at pretest. An evaluation of the two groups, at pretest, revealed the treatment group (M =46.76, SD = 26.98) reported a higher perceived risk of crime. In contrast, the comparison group (M = 33.82, SD = 21.21) reported a lower perceived risk of being the survivor of a crime. An analysis of the posttest data found that the total sample (M = 39.56, SD = 22.27) did not decrease much in their perceived risk of crime. The post-test results for the two groups showed the treatment group (M = 39.88, SD = 20.62) reported a lower perceived risk of being the survivor of a crime. Conversely, the comparison group's (M = 39.24, SD = 24.45) perceived risk of crime was found to have increased from pre to post of the study (See Table 16). The independent samples *t-test* analysis revealed no statistical significant effect for group for Time 1 [$t(32) = 1.555$, $p = .130$] or Time 2 [$t(32) = .083$, $p = .934$].

A 2(Group) by 2(Time) RM ANOVA revealed no statistically significant interaction for group by time [$F(1,32) = 2.278$, $p = .141$, partial $\eta^2 = .07$]. The analysis likewise revealed no statistically significant main effect for time [$F(1,32) = .033$, $p = .858$, partial $\eta^2 = .001$]. Hence, the findings indicate that the participant's overall perceived risk of crime was not changed by the intervention approach (i.e., treatment group versus comparison group) or the length of the study (i.e., 6-week study). An overview of the significant findings for the FCS and PRCS indices will now be provided. The following are the results of that analysis.

Table 16

Descriptive Statistics of the FCS and PRCS Scales

	Treatment Group [a]		Comparison Group [b]	
Fear of Crime Scales	Pretest	Posttest	Pretest	Posttest
Fear of Crime Scales (FCS)				
M	59.24	47.65	47.59	39.53
SD	28.78	25.18	25.23	17.41
Perceived Risk of Crime Scales (PRCS)				
M	46.76	39.88	33.82	39.24
SD	26.98	20.62	21.21	24.45

Note: The higher the scores represent a higher level of fear of crime or perceived risk of crime. An RM ANOVA revealed a statistically significant main effect for *time* for the Fear of Crime Scale at the $p < .016$ from pretest (Time 1) to posttest (Time 2). Computed using $\alpha = .05$

[a]$n = 17$. [b]$n = 17$.

Analysis of the FCS and PRCS Indices

In addition to evaluating the FCS and PRCS individually, an analysis of the indices for both was also conducted. The first set of indices to be evaluated was FCS' property crime indice

including the one public offender crime item, and the personal crime indices. The second set of indices evaluated was the PRCS' property crime and personal crime indices.

FCS: Property Crime Indices

A descriptive analysis of the FCS's property crime indices found the total sample (M = 30.47, SD = 15.54) at pretest (Time 1) reported a low fear of being the survivor of a property crime. The treatment group (M = 29.82, SD = 15.76) reported a slightly higher fear of property crime, than the comparison group (M = 31.12, SD = 15.77). An analysis of the posttest (Time 2) results revealed the total sample (M = 24.88, SD = 12.77) continued to report a low fear of property crime, with only a slight reduction in fear of this type of crime. Additionally, analysis of the posttest results showed both groups, the treatment group (M = 25.12, SD = 12.48) and the comparison group (M = 24.65, SD = 12.77), reported a reduction in fear of property crime, respectively. The independent samples *t-test* found for Time 1 [$t(32) = 1.132$, $p = .266$] or Time 2 [$t(32) = 1.546$, $p = .132$].

For the FCS' property crime indices, an RM ANOVA found no statistically significant interaction for group by time [$F(1,32) = .128$, $p = .676$, partial $\eta^2 = .01$]. The analysis did reveal a statistically significant main effect for *time* ($F(1,32) = 7.120$, $p < .012$, partial $\eta^2 = .18$). The results suggest participants of both groups, regardless of the intervention, experienced a decrease in fear of property crime from engaging in the six-week safety program.

FCS: Personal Crime Indices

The RM ANOVA descriptive analysis of FCS's personal crime indices found at pretest (Time 1) that the total sample (M = 24.18, SD = 13.93) also reported a very low fear of personal crime. Even though both groups reported a low fear of personal crime. The comparison group's (M = 25.65, SD = 12.38) fear of personal crime was lower, than the treatment group's (M =

20.24, *SD* = 13.20) fear. The posttest (Time 2) results analysis revealed a decrease in the total sample's (*M* = 18.41, *SD* = 10.80) fear of personal crime. The treatment group (*M* = 19.00, *SD* = 11.30) reported a slightly greater decrease in fear of being the survivor of a personal crime than the comparison group (*M* = 17.82, *SD* = 10.60). An independent samples *t-test* analysis revealed no statistical significant effect at Time 1 [$t(32) = 1.233$, $p = .227$] or Time 2 [$t(32) = .313$, $p = .756$].

A 2(Group) by 2(Time) RM ANOVA found no statistically significant interaction for group by time [$F(1,32) = 1.025$, $p = .319$, partial $\eta^2 = .03$]. The analysis did reveal a statistically significant main effect for *time* [$F(1,32) = 4.69$, $p < .038$, partial $\eta^2 = .13$]. Similar to the FCS' property crime indices, the analysis indicates participation in the six-week program decreased the participant's fear of being the survivor of a personal crime regardless of intervention. The descriptive statistics for the FCS subscales can be found in Table 17.

Table 17

Descriptive Statistics for the FCS Indices

	Treatment Group [a]		Comparison Group [b]	
FCS Indices	Pretest	Posttest	Pretest	Posttest
Property Crime indices				
M	29.82	25.12	31.12	24.65
SD	15.76	12.48	15.77	13.43
Personal Crime indices				
M	25.65	19.00	20.24	17.82
SD	12.38	11.30	13.20	10.60

Note: The higher the scores represent a higher level of fear of crime indices. An RM ANOVA found a statistically significant main effect for *time* for fear of property crime at the $p < .012$, from pretest (Time 1) to posttest (Time 2). A statistically significant main effect for *time* was also found for personal crime at the $p < .038$ level. Computed using $\alpha = .05$

[a]$n = 17$. [b]$n = 17$.

PRCS: Property Crime Indices

Equal to how the FCS's property crime indices were analyzed, an analysis of the descriptive of the PRCS's indices (i.e., PRCS' property crime and personal crime indices) was

provided by the RM ANOVA. The analysis indicated at pretest, the total sample (M = 20.68, SD = 12.98) reported a low perceived risk of property crime (Time 1). The treatment group (M = 24.12, SD = 14.29) reported a slightly higher perceived risk of property crime at pretest, than the comparison group (M = 17.24, SD = 10.86). The pretest results indicate the participants of both groups started the study with a low level of perceived risk of being the survivor of a property crime. An analysis of the posttest (Time 2) results revealed total sample (M = 19.29, SD = 11.71) was slightly reduced in their overall perceived risk of property crime. The treatment group (M = 20.00, SD = 11.42) demonstrated a greater decrease in perceived risk of property crime at posttest. In contrast, the comparison group (M = 18.59, SD = 12.30) reported a slight increase in perceived property crime after the six-week intervention. An independent samples *t-test* noted no statistical significance for group at Time 1 [$t(32) = 1.581$, $p = .124$] or Time 2 [$t(32) = .347$, $p = .731$].

A 2(Group) by 2(Time) RM ANOVA analysis of the PRCS' property crime indices found no statistically significant interaction for group by time [$F(1,32) = 1.807$, $p = .188$, partial $\eta^2 = .05$]. Nor was a statistically significant main effect found for time [$F(1,32) = .462$, $p = .502$, partial $\eta^2 = .01$]. The findings indicate neither the six-week intervention nor the group approach led to a change in the participant's perceived risk of being the survivor of a property crime.

PRCS: Personal Crime Indices

A descriptive analysis from the RM ANOVA of the PRCS' personal crime indices showed the total sample (M = 14.12, SD = 10.70) reported a low perceived risk of personal crime at pretest (Time 1). The treatment group (M = 17.18, SD = 11.37) reported a higher perceived risk of being the survivor of a personal crime at pretest (Time 1) than the comparison group (M = 11.06, SD = 9.32). An analysis of the posttest (Time 2) results revealed some change

in the total sample (M = 14.74, SD = 10.53) in perceived risk of personal crime. The change demonstrated by the total sample was minimal. After participating in the six-week study, the treatment group (M = 14.47, SD = 9.65) reported reducing the perceived risk of being a personal crime survivor. In contrast, the comparison group's (M = 15.00, SD = 11.64) increased in perceived risk of being the survivor of a personal crime after engaging in the study. Table 18 provides an overview of the descriptive statistics for the PRCS indices. The independent samples t-test analysis found no statistical significant effect for group at Time 1 [$t(32) = 1.716$, $p = .096$] or Time 2 [$t(32) = -.144$, $p = .886$].

The RM ANOVA analysis revealed a statistically significant low main effect for *group by time* [$F(1,32) = 3.222$, $p = .082$, partial $\eta^2 = .09$] for the PRCS's personal crime indices. The findings indicate the treatment group participants experienced a decrease in their perceived risk of personal crime, due to the intervention, in contrast to the comparison group. However the analysis found no statistically significant main effect for time [$F(1,32) = .111$, $p = .741$, partial $\eta^2 = .00$]. The results showed that the six-week duration of the intervention was not a factor in influencing the participant's perceived risk of personal crime. Table 18 provides an overview of the descriptive statistics for the PRCS subscales.

Table 18

Descriptive Statistics for the PRCS Indices

	Treatment Group [a]		Comparison Group [b]	
PRCS Indices	Pretest	Posttest	Pretest	Posttest
Property Crime indices				
M	24.12	20.00	17.24	18.59
SD	14.29	11.42	10.86	12.30
Personal Crime indices				
M	17.18	14.47	11.06	15.00
SD	11.37	9.65	9.32	11.64

Note: The higher the scores represent, the higher level of perceived risk of being the survivor of a property crime. No statistical significance was found for group by time or time for PRCS' property crime indices. An RM ANOVA revealed a statistically significant low main effect for *group by time* for the PRCS' personal crime indices at the $p = .10$ level. Computed using $\alpha = .05$

[a]$n = 17$. [b]$n = 17$.

Linear Regression Results: Perceived Self-Efficacy & Total Fear of Crime

Research Questions 3 & 4: PSE on Fear of Crime for Each Group

A simple linear regression analysis was used to predict if raising perceived self-efficacy (PSE) influenced each group's (i.e., treatment group and comparison group) overall fear of crime (TFC) scores. The overall regression for the treatment group found no statistical significance [$F(1,15) = .326$, $p = .589$, $R^2 = .227$, $R_{adjusted} = -.107$]. The regression results indicate that an increase in PSE from engaging in the augmented intervention (i.e., treatment group) explained only 22.7% of the variance, which was not statistically significant. Additionally, the regression coefficient ($B = 2.41$, $p = .589$) indicated that PSE did not decrease or influence the treatment group's total fear of crime. Therefore, increasing the treatment group's overall PSE through an augmented intervention was not a predictor influencing TFC. Similarly, the overall regression analysis for the comparison group revealed no statistical significance [$F(1,15) = .542$, $p = .480$, $R^2 = .238$, $R_{adjusted} = -.048$]. The regression on the overall PSE for the participants engaged in the non-augmented intervention (i.e., comparison group) explained only 23.8% of the variance. The regression coefficient ($B = -.238$, $p = .480$) revealed that the comparison group's PSE did not influence their overall TFC. Therefore, increasing the participant's PSE through one of the interventions (i.e., augmented or non-augmented intervention) did not correspond to the change in their overall fear of crime (See Table 19).

Table 19

Simple Linear Regression Analysis for Each Group

Variable	*B*	*SE* B	β	*t*	*p-value*
Treatment Group [a]					
(Constant)	2.41	.677	------	3.56	$p = 0.12$
Total Fear of Crime	-.156	.274	-.227	-.571	$p = 0.589$
Comparison Group [b]					
(Constant)	2.621	.516	------	5.08	$p = 0.001$
Total Fear of Crime	-.106	.144	-.238	-.736	$p = 0.480$

Note: The linear regression found no statistical significance. Perceived self-efficacy was not a predictor of total fear of crime. Computed using $\alpha = .05$

[a]$n = 17$. [b]$n = 17$.

Self-defense Self-Efficacy (SDSE) on Fear of Crime

To further evaluate if self-defense played a role in influencing TFC, a simple linear regression was conducted on Self-Defense Self-Efficacy (SDSE) as the predictor variable. The justification for conducting this analysis was that SDSE was the only PSE sub-scale that demonstrated a statistically significant main effect for both groups *by time* and for *time*. Additionally, SDSE aligned with the present study's aim of evaluating if an augmented approach (i.e., psychoeducation group counseling with self-defense) influenced TFC compared to a non-augmented approach (i.e., psychoeducation group counseling only). Therefore, the regression

analysis was used to predict if SDSE influenced either group's (i.e., treatment group or comparison group) overall fear of crime (TFC). The overall regression for the treatment group revealed statistical significance [$F(1,15) = 60.78$, $p < .001$, $R^2 = .802$, $R_{adjusted} = .789$]. The regression findings indicated that SDSE raised from participation in the augmented group (i.e., treatment group) explained 89.6% of the variance, which was statistically significant. The regression coefficient ($B = .482$, $p = .001$) indicated that increasing SDSE through an augmented intervention influenced the participant's total fear of crime. Conversely, a regression analysis for the comparison group found no statistical significance with SDSE as a predictor of TFC. SDSE among the non-augmented intervention accounted for only 10.4% of the variance. Thus, the regression findings for the non-augmented intervention indicated that SDSE did not influence or decrease the comparison group's overall fear of crime.

Additional Findings

Self-Defense Proficiency Skills Test (SDPST)

A proficiency skills test was given to determine if the treatment group's skill acquisition from engaging in self-defense (i.e., SDPST). The SDPST was used to measure the treatment group's ($N = 17$) self-defense skillset at the beginning (Time 1) and end (Time 2) of the six-week intervention. The SDPST aimed to measure any change over time in the treatment group's self-defense skills and techniques.

A descriptive analysis was conducted on the SDPST pre to post-data. The analysis showed the treatment group proficiency score was low ($M = 0.88$, $SD = 2.11$) for self-defense at pretest (Time 1). An analysis of the post-test (Time 2) results showed a greater increase in the treatment group's self-defense skills performance ($M = 2.57$, SD = 0.30) compared to time one. A paired-samples t-test was conducted to compare the treatment group's self-defense

performance before (pretest, Time 1) and after (posttest, Time 2) the six-week psychoeducation group counseling and self-defense class. The analysis revealed a significant difference in the score for SDPST pretest (Time 1) scores and SDPST posttest (Time 2) scores; t(16)= -34.96, $p <$ .001. Thus, the findings demonstrated the effect of the six-week psychoeducation group counseling and self-defense training on the participant's increased self-defense performance. An analysis of the different components of the SDPST (i.e., speed, accuracy, and effectiveness) revealed additional insight. An overview of the statistical findings for the SDPST can be found in Table 20.

Trending Effects of the SDPST

Speed of skill. The treatment group's self-defense skill was measured based on how fast the participant could perform the skill (i.e., speed in seconds). Descriptive analysis showed the treatment group (M = 1.38, SD = 0.31) was slower to perform the self-defense skills (i.e., slower speed in seconds) at pretest (Time 1). An analysis of the posttest (Time 2) results showed the treatment group (M = 2.93, SD = 0.34) performed the self-defense skills quicker and increased in speed (in seconds) over time. A paired-samples t-test was conducted to compare the treatment group's results in speed before (pretest, Time 1) and after (posttest, Time 2) the six-week self-defense training. The analysis revealed a significant difference in the scores for speed at Time 1 (pretest) and speed at Time 2 (posttest); t(16) = -19.35, $p <$ .001. The results indicate an effect of the self-defense training on the participant's increased speed in performing the self-defense skills measured.

Accuracy of skill. The treatment group's self-defense skill was measured based on how accurately they could perform the skill being measured. Descriptive analysis showed the treatment group's (M = 0.71, SD = 0.25) accuracy scores were very low at pretest (Time 1). The

results indicated participants of this group demonstrated very low accuracy in performing the self-defense skills. An analysis of the posttest (Time 2) results showed the treatment group's (M = 2.52, SD = 0.30) accuracy in performing the self-defense increased greatly. A paired-samples t-test was conducted to compare the treatment group's accuracy scores before (pretest, Time 1) and after (posttest, Time 2) the six-week self-defense training. The analysis revealed a significant difference in the scores for accuracy between Time 1 (pretest) and at Time 2 (posttest); t(16) = -27.01, $p < .001$. The findings indicate that the six weeks of self-defense training affected the participants to perform the self-defense skill accurately when measured.

Effectiveness of skill. In addition to speed and accuracy, the self-defense skill's effectiveness (i.e., how effective the skill being demonstrated would be in a self-defense situation) was measured. A descriptive analysis of the pretest (Time 1) scores showed that effective use of the self-defense skill was low in the treatment group (M = 0.55, SD = 0.22). An analysis of the results posttest (Time 2) scores revealed that the treatment group (M = 2.27, SD = 0.38) improved greatly in performing self-defense skills. A paired-samples t-test was conducted to compare the treatment group's effectiveness scores before (pretest, Time 1) and after (posttest, Time 2) the six-week self-defense training. The analysis revealed a significant difference in the scores for effectiveness at Time 1 (pretest) and speed at Time 2 (posttest); t(16) = -28.713, $p < .001$. Thus, revealing an effect of the self-defense training on the participant's increased effectiveness in performing the measured self-defense skills. Graph 3 provides a visual of the reported findings for SDPST.

Table 20

Paired-Samples T-Test of the Self-Defense Proficiency Skills Test and Components

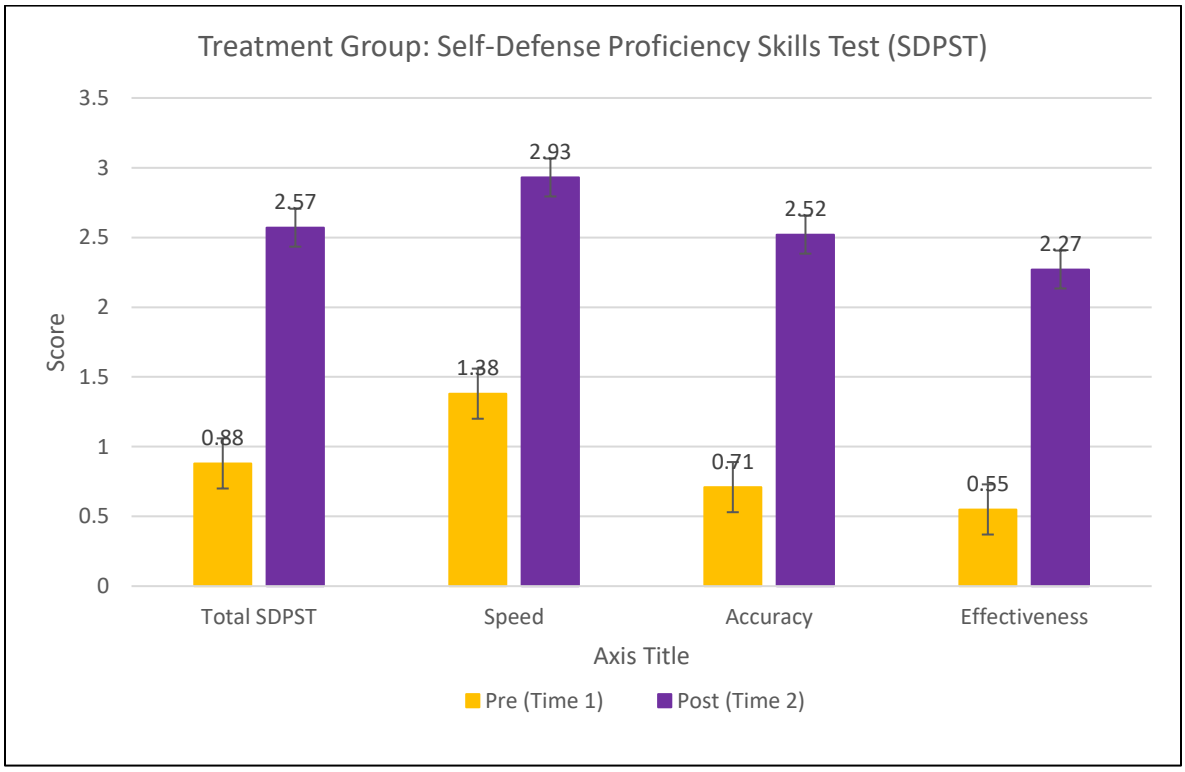
	Treatment Group [a]		
SDPS Test	Pretest	Posttest	*p - value*
Total SDPS test			
M	0.88	2.57	*p* <.001
SD	0.21	0.30	----------
Speed of skill			
M	1.38	2.93	*p* <.001
SD	0.31	0.34	----------
Accuracy of skill			
M	0.71	2.52	*p* <.001
SD	0.25	0.30	----------
Effectiveness of skill			
M	0.55	2.27	*p* <.001
SD	0.22	0.38	----------

Note: The higher the score, the better demonstration of self-defense skills performance. The difference between the means for the SDPST and each of the components tested (i.e., speed, accuracy, and effectiveness) were found to be statistically significant at the $p = 0.001$ level. Computed using $\alpha = .05$

[a]*n* = 17.

Graph 3

Treatment Group's SDPST Results, from Pre- (Time 1) to Post- (Time 2) the study



Note: The higher the score, the higher the proficiency in self-defense skills for that component. Statistical significance was found for all three components (i.e., speed, accuracy, and effectiveness) at the $p < 0.001$ level. Computed using $\alpha = .05$

[a]*n* = 17.

Satisfaction & Technology (S&T) Survey

The Satisfaction and Technology Questionnaire (S&TS) assessed the participant's satisfaction with engaging in the six-week intervention (i.e., treatment group or comparison

group). The S&TS was provided at the end of the six-week study, with scores ranging from 0 (i.e., Not at all) to 4 (i.e., Quite a lot). Overall, the S&TS consisted of three components evaluating (a.) satisfaction with the overall study and use of technology, (b.) use of technology due to the study, and (c.) the impact of participating in the study.

Satisfaction with the design and procedures

The first set of scores evaluated the group's satisfaction with the study design and procedures and the use of technology (i.e., online surveys and video conferencing technology). Descriptive analysis revealed that the treatment group participants (M = 3.29, SD = .58) reported high satisfaction levels with the study. Similarly, the comparison group participants (M = 3.49, SD = .54) also reported high satisfaction with the study design and procedures. Although both groups reported high satisfaction scores, the comparison group's satisfaction was slightly higher than the treatment group's mean score. The satisfaction scores indicate that both groups were satisfied with the study design, procedures, and technology used.

Use of Technology During the Study

The second set of satisfaction scores evaluated the group's use of technology from engaging in the study. Specifically, if their use of technology (i.e., smartphones, computers, tablets/iPad, text messaging, email, or web searches) increased. An initial exploratory analysis revealed the treatment group participants reported using their smartphones (M = 2.71, SD = 1.45) more, from engaging in the study, followed by text messages (M = 2.53, SD = 1.50). In contrast, tablets and iPads (M = 2.06, SD = 1.39) was used the least by the treatment group participants. For the comparison group participants, searching on the web (M = 2.35, SD = 1.33) was the most used technology from engaging in the six-week study. Followed by the comparison group's use of their smartphone (M = 2.29, SD = 1.49) and sending text messages (M = 2.24, SD

= 1.48). Descriptive analysis showed that the treatment group participants (M = 2.34, SD = 1.27) reported moderate technology use from the six-week augmented intervention. Similarly, the comparison group participants (M = 2.14, SD = 1.29) also reported moderate use of technology since engaging in the six-week non-augmented intervention. The technology use scores indicate that both groups moderately increased their overall use of technology.

The participants responded to three qualitative questions provided in the S&T survey. These three questions evaluated whether participants would apply what they learned, other types of technology used, and whether their views on safety and self-defense influenced engagement in the study. The responses provided by participants regarding these questions can be viewed in Appendix R. The survey also evaluated the impact of engaging in the study and the participant's willingness to engage in similar, remotely online studies in the future. The results and themes of these two queries have been provided in Appendix S. The findings noted from the S&TS provided beneficial insight into how the overall study approach was received. Even though a significant inference can't be made, the results indicate that older adults are interested in participating in similar interventions and safety classes remotely online.

Chapter Summary

The present study's findings were noteworthy regarding PSE and fear of crime among the aging population. The results revealed that both groups increased in overall PSE, regardless of the intervention. Additionally, the results found that both groups experienced a change over time in their fear of crime from participating in the six-week study. The treatment group decreased their overall fear of crime, whereas the comparison group showed an increase in fear. These findings indicate that participant's in the augmented group (i.e., the treatment group) became less fearful of being the survivor of a crime, unlike the comparison group.

Further analysis revealed that although both groups decreased in fear of personal crime from participating in the six-week study, the comparison group‘s *perceived risk* of experiencing a personal crime has increased. Yet, an analysis of the influence of the sum of PSE on total fear of crime found that PSE was not a predictor of either group’s total fear of crime. However, self-defense self-efficacy was a predictor of total fear of crime. The findings further noted that the treatment group’s self-defense skills improved after six weeks of training. In addition, the post-test satisfaction survey revealed that most participants were satisfied with the study approach and use of technology. The present study's findings demonstrate the benefits of providing an augmented intervention addressing an older adult’s fear of crime and perceived risk and raising their overall perceived self-efficacy.

CHAPTER V: DISCUSSION

Introduction

At the beginning of 2020, the world was beset by a virus that caused a worldwide pandemic (Blake & Wadhwa, 2020; Moreland et al., 2020). Due to a virus known as COVID-19, much of the world enforced stay-at-home policies, and individuals found themselves quarantined at home (Blake & Wadhwa, 2020; Moreland et al., 2020). Although the pandemic impacted every age group, the most impacted age groups were older adults, 65 and older (Williams II et al., 2021; Vahia et al., 2020). The older adult population was some of the most vulnerable to the virus and at high risk of severe illness, hospitalization, and death (Vahia et al., 2020; Williams II, 2021). Fear of the virus led many older adults to engage in strict social isolation at home to protect their overall health and wellbeing (Williams II, 2021; Vahia et al., 2020). Recent studies (i.e., Czeisler et al., 2020; Hamm et al., 2020; Pearman et al., 2020; Vahia et al., 2020) have noted older adults, during the pandemic, exhibited more resilient characteristics (i.e., positive coping mechanisms, lower stress response, and better mental health factors), than younger age groups (Vahia et al., 2020). Older adults continued expressing concerns about personal safety (Payne, 2020). Restrictions related to COVID-19 (i.e., stay-at-home orders, mask-wearing implementation, and social distancing) heightened their fear and failed to change their fear surrounding crime (Payne, 2020).

Before COVID-19, a common concern for older adults was the fear or perceived risk of being the survivor (or victim) of a crime (Akers et al., 1987; Hale, 1996; Rader, 2017). Even though this age group reports a high fear of crime and perceived belief of experiencing crime, older adults are less likely to be the target of violent or even non-violent crime (Morgan & Kena, 2018; National Sheriffs' Association, 2012). Before the pandemic, overall crime had declined

since 2004, even though 2019 statistics showed that crime impacting older adults rose (National Crime Victimization Resource Week, 2018; Morgan & Kena, 2018).

Nonetheless, as the pandemic surged across the United States, violent crime and some non-violent crimes declined dramatically (Nivette et al., 2021; Stickle & Fleson, 2020). The two crime to grow significantly during the first three months was fraud and cybercrime (Payne, 2020; Stickle & Fleson, 2020). Regrettably, crime statistics show older adults were often the primary target for these types of crimes (Payne, 2020; Stickle & Fleson, 2020). The increase in criminal activity targeting older adults further heightened their overall fear of crime and perceived risk of being the survivor of a crime (Payne, 2020). Many older adults expressed fear of experiencing a home burglary or increased elder abuse during the pandemic (Ansberry, 2021; Nivette, 2021; Stickle & Fleson, 2020). The difference between *how* older adults feel (i.e., fear) and perceive (i.e., greater risk) crime versus *what* is experienced is notable. Finding ways to address this age group's fear and perceived risk of crime will be essential to this growing population's overall health and wellbeing.

The present study aimed to evaluate the influence of an augmented counseling (i.e., psychoeducation group counseling and self-defense) intervention on an older adult's fear of crime and perceived risk of being the survivor of a crime. Due to COVID-19 restrictions, the six-week augmented psychoeducation safety information and self-defense training program was provided remotely online to seventeen older adults (i.e., treatment group). The present study compared the results to a comparison group (i.e., seventeen older adults) receiving psychoeducation safety information only remotely online. Participants of both groups were assessed at the beginning (pre) and end (post) of the six-week intervention using the PSES, FCS, and PRCS. The results of those measures revealed several notable findings.

Summary of Findings

Perceived Self-Efficacy (PSE)

The current study examined the sum of both groups' perceived self-efficacy or confidence levels (i.e., treatment group and comparison group) in handling or addressing unsafe situations. The study results showed that both groups (i.e., treatment group and comparison group) increased perceived self-efficacy, pre-to-post the six-week study, regardless of the intervention. There are several possible reasons why both groups experienced an increase in PSE from engaging in a six-week safety program. First, participants of both groups received the same psychoeducation information on safety, increasing their knowledge-base of dealing with and preparing for unsafe situations. Second, motivational interviewing techniques were used during the psychoeducation group counseling procedures. Using motivational interviewing to process thoughts and feelings allowed participants of both groups to discuss and analyze any fear or concerns about safety and ways of addressing threatening situations. The use of MI could have influenced the participant's overall self-efficacy. Lastly, the participants of both groups participated in the study remotely online. The online approach could have led to a shared influence on their overall self-efficacy, allowing participants to connect and discuss safety concerns with others across North Carolina, regardless of location. The findings for the participant's sum of PSE answered the first two research questions of the present study.

Research Questions 1: PSE and Intervention Approach

RQ1: ***Does participation in an augmented psychoeducation group counseling and self-defense training program differ from an only psychoeducation group counseling on a person's perceived self-efficacy?*** Based on the study's statistically significant findings for PSE, the hypothesis of the first research question was supported. The study results found that participation

in an augmented psychoeducation group counseling and self-defense training program statistically significantly influenced the participant's overall PSE. The treatment group's (i.e., augmented group) self-efficacy increased from pre (beginning) to post (end) the study. The study's findings noted the sum of PSE for the non-augmented group was also statistically significant. Even though it was hypothesized that the comparison group experienced little to no change in PSE, the study's results found the opposite. The results revealed that participation in psychoeducation group counseling only significantly influenced the comparison group's overall PSE. Thus, participation in a psychoeducation group counseling-only program significantly influenced the participant's self-efficacy.

The study's findings indicate that the intervention approach, whether augmented or non-augmented, had a statistically significant influence on the participant's PSE. Therefore, supporting the hypothesis of both research questions. Studies examining the effects of group counseling on perceived self-efficacy have noted a group counseling approach, regardless of the counseling approach, leads to an increase in PSE (Bakalim et al., 2018; Navaei et al., 2018; Kaya & Guler, 2022). Studies have shown that processing in a group setting promotes positive interaction, and discussion can create an effective learning environment (Bakalim et al., 2018; Navaei et al., 2018). Such an environment allows the person to process their emotions, any identified challenges, or shared experiences with the other group members and vice versa (Bakalim et al., 2018; Navaei et al., 2018). Having a shared experience can be effective in helping individuals find group membership and increase an individual's perceived self-efficacy or confidence levels regarding a subject (Bakalim et al., 2018; Navaei et al., 2018; Sanders & Murray, 2018).

A study by Sanders and Murray (2018) produced similar findings. The SDSE of 32-older adult participants was assessed pre- and post-engaging in a six-week self-defense training program. In this study, one group (i.e., treatment group) was provided self-defense implicitly and the other (i.e., comparison group) explicitly. The results of the study by Sanders and Murray (2018) revealed that regardless of the intervention, both groups (i.e., implicit and explicit groups) increased in SDSE, irrespective of the six-week intervention. The researchers concluded self-defense instruction, in general, led to increased perceived self-efficacy or confidence to deal with an unsafe or threatening situation physically. Similar to the present study's findings, the PSE of the older adult participants was enhanced by receiving psychoeducation safety information only or additionally receiving self-defense training. Therefore, regardless of the intervention approach, the participants felt more confident handling unsafe situations after engaging in the six-week study. A discussion on any significant findings for the three PSE subscales (i.e., Activities SE, Interpersonal SE, and Self-Defense SE) will now be provided.

Significant Findings for the PSE Subscales

PSE subscale significance. The results of the PSE subscales revealed no statistical significance for Activities SE. The participant's confidence level was unchanged from participating in the six-week study, regardless of intervention (i.e., augmented versus non-augmented). However, for Interpersonal SE and Self-Defense SE, statistical significance was noted. ***Interpersonal Self-Efficacy (SE).*** Interpersonal SE evaluated the participant's confidence level with addressing and handling situations that may be unsafe or threatening (i.e., being approached by a panhandler, getting off an elevator if feeling threatened, or going to a neighbor to get help). The data results revealed both groups increased in Interpersonal SE or confidence from engaging in the six-week study, regardless of the intervention approach. Similar findings

were noted for SDSE. ***Self-Defense Self-Efficacy (SDSE).*** The SDSE subscale evaluated the participant's confidence level by utilizing various self-defense methods and techniques to protect themselves. The study results found the treatment group increased in SDSE from engaging in the augmented intervention approach, whereas the comparison group did not. Additionally, the treatment group's SDSE was also noted to increase over time from participating in the six-week study.

The findings of the current study on Interpersonal SE and SDSE are supported by previous research (Liebling, 2006; Michener, 1997; Ozer and Bandura, 1998; Sanders, 2014; Sanders & Murray, 2018; Weitlauf et al., 2000). A study by Michener (1997) examined the Interpersonal SE and SDSE of forty-two young adult female participants who participated in a 9-hour rape aggression defense program. The participants were surveyed pre- to post-the nine-hour program instruction. The study results indicated that participation in the rape aggression program increased the participant's Interpersonal SE and SDSE over time. The researcher concluded that engagement in such programs could increase an individual's confidence levels in handling unsafe or threatening situations. While simultaneously reducing the likelihood of victimization of a violent or non-violent crime.

Total Fear of Crime (TFC), FCS & PRCS Scales, and Indices

The findings for Total Fear of Crime provided unique insight into the widespread fear of crime for the older adult participants of both groups. The results for TFC found a significant interaction, with the treatment group demonstrating a decrease in overall fear of crime from engaging in the six-week program. In contrast, the comparison group increased their overall fear of crime from participating in the six-week program. There are several reasons why the comparison group increased their overall fear of crime while the treatment group did not. First,

hearing about and discussing topics about crime and safety might have heightened their awareness of crime. Second, even though the comparison group received safety information and resources, the group did not receive any direct self-defense training. The lack of training and the increased awareness about crime or unsafe and threatening situations may have influenced their fear of crime. For survivors of trauma-based events, such as crime, psychoeducation group counseling has shown to decrease the severity of trauma-related consequences (i.e., fear, depression, anxiety, PTSD), especially in older adults (Baez et al., 2017; Bains et al., 2014; Gormisch, 2019; Gielkens et al., 2021). The findings for total fear of crime provided the answers to the study's third and fourth research questions.

Research Questions 2: Total Fear of Crime and Intervention Approach

RQ2: ***Does participation in an augmented psychoeducation group counseling and self-defense training program differ from an only psychoeducation group counseling on a person's fear of crime?*** For the second research question, the study's findings supported the hypothesis regarding fear of crime. The findings noted for total fear of crime that participation in an augmented psychoeducation group counseling and self-defense training program (i.e., treatment group) had a statistically significant influence on the participant's overall total fear of crime. The findings revealed that the augmented intervention decreased the treatment group's overall fear and perceived risk of a crime. Henceforth, the second research question was met. Studies examining the benefits of psychoeducation have noted that participants who receive information about safety can decrease perceived risk or harm (Bains et al., 2014; Etain et al., 2018; Gormisch, 2019; Greve, 1998). Previous studies note psychoeducation combined with a physical component (i.e., physical exercise or self-defense) demonstrated a significant reduction in mental health concerns (i.e., fear, decreasing avoidance behaviors, depression, anxiety, PTSD),

especially those experienced by older adults (David et al., 2006; Lovrencic et al., 2015; Skov et al., 2021). In addition, mitigating effects of psychoeducation augmented with a physical component are often sustained six-month at follow-up and shown to increase the participant's quality of life (Gur et al., 2017; David et al., 2006; Lovrencic et al., 2015; Skov et al., 2021).

Conversely, the study's findings revealed that participation in a psychoeducation group counseling only program (i.e., comparison group) had a statistical influence on a participants' overall fear of crime. Yet, unlike the treatment group, the participants who provided the non-augmented intervention (i.e., comparison group) increased their general fear and perceived risk of crime. The findings indicate that the non-augmented intervention negatively affected the participant's total fear of crime compared to the augmented intervention. The results of the comparison group's TFC underscore the influence of messages on crime and safety on an older adult's fear of crime and perceived risk. Messages on crime and safety can play a role in how older adults perceive the world and those around them (Custers & Van den Bulck, 2011; Nasi et al., 2021). The impact of precautionary messages or safety information can potentially lead to a heightened awareness about crime, ultimately increasing their overall perceived risk (Acierno et al., 2010; Akers et al., 1987; Chadee et al., 2016; Nasi et al., 2021). These findings indicate the approach used to address fear of crime can have a maladaptive effect.

In a study by Callahan (2012), messages on crime played a key role in influencing an individual's overall fear of crime. The study examined the impact of crime-related messages across different media through a state-wide survey. The survey assessed the respondent's perceptions of crime risk and fear of crime. Of the 3,712 adults who responded, those who reported a higher fear of crime and perceived risk stated they received messages about crime from the local television news or watched crime-based reality programs. The study concluded

recurrent and ubiquitous crime messages influenced the perception of crime risk and fear of being the survivor of a crime.

As noted, some studies have shown psychoeducation group intervention can lessen an individual's perceived risk or harm (Bains et al., 2014; Etain et al., 2018; Gormisch, 2019; Greve, 1998). Although this was true for the treatment group, the current study's findings noted the opposite for the comparison group. The difference between the two group's TFC may be due to the increased awareness of perceived risk or harm. The treatment group's increased awareness was offset by a physical method (i.e., self-defense training) of addressing unsafe. The comparison group only received safety messages on crime. Thus, leading to an increase in the comparison group's overall fear of crime and perceived risk.

Significant Findings for the FCS, PRCS, and Indices

FCS and PRSC scales. An individual examination of the scores for the FCS and PRCS scales revealed several notable findings. ***FCS scale.*** The analysis of the FCS scale found the treatment group reported greater fear of crime than the comparison group at pretest. However, by posttest, both groups had decreased their fear of crime. The study results indicated that regardless of the intervention (i.e., augmented or non-augmented), the participant's fear of crime was reduced by engaging in the six-week study. ***PRCS scale.*** The analysis of the PRCS scale found that the treatment group reported a higher perceived crime risk at pretest than the comparison group. However, at posttest, the treatment group's perceived risk had decreased, whereas the comparison group reported a higher perceived crime risk. Yet the findings were not statistically significant, indicating the participant's overall perceived risk was not influenced by any aspect of the study. The significant findings for the FCS and PRCS scales have been replicated by previous studies (i.e., Chadee et al., 2019; Liebling, 2006; Shibata and Nakayachi, 2020). Many

of the studies noted that when presented with safety-based information, the participant's fear of crime and perceived risk decreased (Chadee et al., 2019; Liebling, 2006; Shibata and Nakayachi, 2020). Studies examining fear of crime and perceived risk in older adults note age-related fear increases precautionary behaviors (Akers et al., 1987; Chadee et al., 2019; Hale, 1996; Kappes et al., 2013; Rader, 2017). Yet, presenting effective messages and preventative measures can counter fear of crime and perceived risk, reducing fear and precautionary behaviors (Chadee et al., 2020; Chataway & Hart, 2017; Johnson-Dalzine et al., 1996; Liebling, 2006; Lim et al., 2020; Orzek and Loganbill, 1985).

FCS Indices. An analysis of the individual indices of the FCS and PRCS scales did reveal some more significant findings. ***FCS: Property crime indices.*** A statistically significant finding for the FCS: Property Crime indices showed that participation in the six-week study decreased fear of experiencing a property crime regardless of the intervention. ***FCS: Personal crime indices.*** Similarly, the Fear of Crime Scale's Personal Crime indices noted a statistically significant finding. The results indicate that the participants of both groups (i.e., treatment and comparison group) reported a decrease in fear of experiencing a personal crime after participating in the six-week study.

The fear of experiencing a personal crime has heightened the severity of psychological distress regarding future victimization (Kunst and Zwirs, 2013). Preventative strategies (i.e., safety information, messages, and programs) can effectively counter fear of personal crime, reducing an overall fear of crime (Chadee et al., 2020; Chataway & Hart, 2017; Johnson-Dalzine et al., 1996; Liebling, 2006; Lim et al., 2020; Orzek and Loganbill, 1985). The results of the present study support these findings.

PRCS Indices. Analysis of the PRCS subscales also revealed notable findings for at least one of the two indices. No statistically significant findings were found for the PRCS' Property Crime indices. The results indicate that regardless of the intervention or length of the study, the participant's perceived risk of experiencing a property crime was unchanged. ***PRCS: Personal crime indices.*** However, an analysis of the PRCS' Personal Crime indices revealed the treatment group's perceived risk of experiencing a personal crime was slightly decreased. Conversely, the comparison group's perceived risk of experiencing a personal crime increased. The findings demonstrate that participating in the six-week study lessened the participant's fear of crime, fear of property crime, and fear of personal crime. Whereas participation in the study only decreased perceived risk of experiencing a personal crime for the treatment group participants.

Previous research indicates the significant findings of the PRCS indices for personal crime. In a study by Chadee, Williams, and Bachew (2020), fear of crime and perceived risk of victimization were predictors of precautionary or avoidant behaviors. Chadee et al. (2020) noted that emotional distress and risk perception influenced an individual's perceived risk of experiencing a crime, such as a personal crime. The findings by Chadde et al. (2020) correspond to the current study, providing insight into *why* perceived risk increased among those in the comparison group. A summary of the results between PSE and TFC will now be provided.

Perceived Self-Efficacy (PSE) on Total Fear of Crime (TFC)

PSE was assessed as a predictor variable for the TFC scores. The overall regression revealed that PSE was not a predictor of the participant's TFC. The regression coefficient indicated that PSE accounted for only 22.7% (i.e., augmented intervention) to 23.8% (i.e., non-augmented intervention) of the overall variance in the participant's fear of crime. The findings suggest that the rise in perceived self-efficacy experienced by both groups did not statistically

influence their overall fear of crime. However, statistical significance was found in an analysis of Self-Defense Self-Efficacy (SDSE) as a predictor of TFC. The findings revealed that SDSE accounted for 89.7% of the variance influencing the treatment group's TFC. Conversely, SDSE only accounted for 10.4% of the variance in the comparison group's TFC. The regression analysis findings were beneficial in answering the final two research questions of the current study.

Research Questions 3 & 4: PSE's Influence on TFC

RQ3: ***For an augmented psychoeducation group counseling and self-defense training approach, what is the relationship between self-efficacy and a person's fear of crime?*** The third research question was found unsupported, based on the findings. The study's findings indicated no relationship between self-efficacy and an augmented psychoeducation group counseling and self-defense training approach (i.e., treatment group) on the participant's fear of crime. The regression analysis found enhancing perceived self-efficacy (PSE) through an augmented intervention approach did not predict any variance in the treatment group's overall fear of crime (TFC). Additionally, the regression analysis also provided insight into the non-augmented intervention.

RQ4: ***For a psychoeducation group counseling only approach, what is the relationship between self-efficacy and a person's fear of crime?*** Based on the findings, the fourth research question was also found to be unsupported. The regression analysis revealed no relationship between perceived self-efficacy and a psychoeducation group counseling only approach (i.e., comparison group) on the participant's fear of crime. The regression analysis findings indicated that raising PSE by the non-augmented approach did not predict any change in the participant's overall fear of crime.

Self-Defense Self-Efficacy (SDSE) on TFC

Even though the current study found no relationship between overall PSE and the participant's total fear of crime, the relationship between SDSE and total fear of crime was significant. Studies examining the relationship between SDSE and fear of crime have noted how raising SDSE reduces perceived risk and fear (Ball & Martin, 2012; Liebling, 2006; McDaniel, 1993). A study by McDaniel (1993) examined the relationship between fear of crime and self-defense training. The researcher concluded SD training could positively affect an individual's psychological well-being and decrease feelings of vulnerability or perceived risk. Another study by David, Simpson, and Cotton (2006) noted that providing psychoeducation with SD training led to positive psychological and emotional benefits. David et al. (2006) concluded that SD combined with psychoeducation decreased depression and avoidance behaviors and increased perceived self-efficacy. The significant findings related to SDSE and total fear of crime highlight how SD training can be an ineffective intervention. An overview of additional findings will be discussed to understand the study results further.

Study's Findings and Social Cognitive Theory (SCT)

The foundational theory of the present study, SCT, maintains that enhancing a person's perceived self-efficacy can lead to increased confidence. The increased self-efficacy and confidence gained through a variety of methods (i.e., mastery experiences, vicarious learning, verbal persuasion, and interpretation of physiological states) can result in a person engaging in a new behavior or task. Raising perceived self-efficacy is key to mitigating the effects of fear of crime and perceived risk in older adults. The present study's findings coincide with this aim and SCT in several ways. First, the study's findings noted that offering psychoeducation safety information alone increased the older adult's confidence in handling an unsafe situation. Second,

the results showed an augmented approach (i.e., psychoeducation and self-defense program) also led to enhanced self-efficacy and decreased total fear of crime. The latter was especially noted for those in the treatment group. Thusly, psychoeducation group counseling augmented with a component like self-defense can be used to empower older adults. An augmented approach can also be used to increase their confidence to counter fear of crime and perceived risk of crime.

Other Notable Findings

Shared Commonalities among the Older Adult Participants

Common Trends Shared by Participants

In addition to the findings already noted, several commonalities were shared by the participants of both groups (i.e., treatment group and comparison group), regardless of the intervention approach (i.e., augmented intervention or non-augmented intervention).

First trend: Common safety concerns. The first notable trend was the participant's shared concerns about safety and safety questions. Some of the common safety concerns included the following: living alone, being approached or attacked while caring for a loved one (i.e., child, grandchild, spouse, friend), living near woods or a wooded area, having unknown cars drive up, or parking outside their home, going shopping, walking to their car and being attacked, being kidnapped, or being robbed. Two of the most common safety concerns involved someone trying to break into their home (i.e., home invasions) or answering the door when home alone. Other safety concerns included the following: what to do to remain safe when a handyperson comes to your home, driving at night, keeping medication safe from theft, being attacked or approached by wild or stray animals, escaping residence if it's on fire, or being invaded, going to unknown places, getting lost (whether driving or walking), having their bank accounts compromised or money stolen and having identity stolen. One notable concern

expressed by both the white and black/African American participants was concerns about being stopped by a police officer and how to remain safe if pulled over.

COVID-19 was also a shared concern, with many participants still worried about going out in public and potentially contracting the virus. Fear of the virus or "fear of the unknown" was one of the reasons many of the participants stated they "continued to stay-at-home and only go out if it was only necessary (i.e., to grocery shop, attend doctor's appointments, or pay bills)." Many participants stated the COVID restrictions (i.e., stay-at-home policies, policies involving the wear of face masks) and the divide on the COVID-19 vaccines had created a lot of tension among Americans. In addition, participants also expressed a shared concern about the "political tension in the country and the tense political climate." Participants stated that the tension in the U.S. along with increased aggression exhibited by Americans (i.e., "fights on airlines," "shootings," "road rage," and the "January 6th insurrection" of 2020) heightened their "concern when it came to (their personal) safety."

Second trend: Common safety questions. Many participants shared common safety concerns led to a second trend, common safety questions asked by participants. Some of the common safety questions asked were: what to do if grabbed from behind, what to do if being choked, where to strike (i.e., face or body) effectively to disable an attacker, and what to do if their arm was pinned. Even though participants shared, they used some of the self-defense tools discussed (i.e., whistles, personal safety alarms and keychains, and mace or pepper spray) or other weapons (i.e., knives). Participants were also asked how to effectively use various self-defense tools (i.e., mace, pepper spray, tasers, walking sticks, keys). Participants also requested more information about their state's self-defense laws and laws involving using self-defense tools (i.e., stun guns, mace, pepper spray, air horns) or weapons (i.e., using a gun or knife for

self-protection). The researcher noted that the two most asked safety questions were about how to address being grabbed from behind and laws regarding using self-defense tools and weapons.

Common safety concerns and questions older adults share are a part of this age group's membership. A study by Bule and Frings (2016) examined the role of group membership on mental well-being. The study assessed 31 adults between 20 to 84 years of age. The study's findings noted group membership was linked to positive or negative perceptions accepted by individuals (Bule and Frings, 2016). Thus, the more robust and higher the continuity of group membership, the better its members' emotional and mental well-being. Bule and Frings's (2016) findings indicate that group membership can influence an individual's mental and emotional well-being and perceptions shared by the group. The findings on common concerns and questions in the present study highlight the concerns and questions shared by older adults. These findings also hint at why older adults report a higher fear of crime, especially if the group membership upholds these beliefs.

As noted in the findings, many of the older adult participants, especially in the comparison group (i.e., non-augmented group), reported a very low fear of crime or perceived risk. The shared safety concerns and questions versus was reported and how the participants felt about crime underscores a notable incongruence. Many of the older adults expressed a lot of fear and concern over their personal safety. The question then remains if participants were responding to the survey questions in a manner to appear braver or less afraid than they actually were. Another notable trend involving safety concerns and questions was the maladaptive aspect of the intervention for the comparison group. The study's findings noted that the comparison group increased in overall fear of crime while engaging in the six-week study. In contrast, the treatment group decreased in fear of crime. The fact that the treatment group decreased in fear and the

comparison group did not make the present researcher question when fear of crime becomes adaptive versus maladaptive. The only difference between the two groups was the treatment group received self-defense training, which might have contributed to the decrease in their fear of crime. Whereas receiving only the psychoeducation safety information may have heightened the comparison group's awareness of crime. The intervention may have been maladaptive to the comparison group's overall fear of crime by doing so and without any physical way to confidently control for that hyper-awareness.

Third trend: Interest in sharing safety and self-defense information. A third trend noted was the desire of the older adult participants to share information with another. Participants would often share additional safety tips and resources during the group sessions. Some examples of the information shared included: websites and apps for monitoring safety (i.e., Nextdoor website, Find My app, and Manything security app), security features (i.e., motion detector lights, ring doorbell security cameras, punch code door locks, and Amazon Alexa smart plugs), medical features (i.e., Vial of Life and fall prevention), and cyber security features (i.e., Avast free anti-software and credit card alerts). Additionally, participants would share resources in the community or resources offered by local organizations (i.e., Council on Aging paper shredding events and USPS mail tracking services).

There are several reasons why older adults seek out and share health and safety information. Research evaluating older adults' intentions to share health-related information online notes social media plays a crucial role (Shang et al., 2019). A study by Shang et al. (2019) maintained that a segment of the older population used social media to maintain social connections, obtain information to enhance daily activities, and seek health information. The researchers noted many older adults shared information to generate hope, address concerns, and

provide updates about their health status. The current study noted that many participants were eager to share safety tips or resources during the sessions, hinting at previous research findings. Their willingness to share highlighted the desire to connect and learn from one another on many levels.

Fourth trend: Request for additional safety and self-defense resources. A fourth and final trend was that both groups' participants requested extra safety and self-defense resources. Participants would often ask the researcher for additional information beyond what was presented in a session, such as further details on self-defense tools and legal information on using self-defense tools. While engaged in the study, many participants requested more safety tips during a session. Examples include using a fire extinguisher effectively, what to have on an emergency list, or how to stop solicitors from contacting them. Participants would also ask for articles and information to practice mental toughness, how to yell for help effectively, or how to use words to defend themselves. Participants would also ask for resources on using visualization techniques to practice by themselves or positive self-talk and affirmations to remain calm. After participating in the study, participants would inquire about in-person self-defense classes offered in their local areas. Or they would ask about videos and resources that would provide additional self-protection and self-defense tips or training. For instance, a common request was videos and resources that demonstrated grab defense or the effective use of self-defense tools.

Harrod (2011) examined *why* older adults seek health-related information and implications for this age group. The researchers noted that older adults are more likely to seek health and safety information online than younger age groups. The study conducted in-person interviews and observations to evaluate the health-seeking behavior of eight older adults. The study results found that one of the main reasons these older adults sought health information was

to maintain independence and counter dependence on others. The study also noted not all information was disease-specific but involved gaining task-related knowledge. Additionally, fear of being seen as dependent further motivated them to seek health information online. The findings by Harrod (2011) resonated with the current study's findings when many of the participants were motivated to gain additional information on personal safety while empowering others by sharing information. The present study also noted the impact of ageism on older adults seeking safety and self-defense information.

Ageism, Self-Protection, and Older Adults

A second commonality that both groups shared was their interest and enthusiasm for learning about safety and self-defense. The researcher noted that most of the participants of both groups appreciated the safety tips and information. Additionally, the treatment group's information about self-protection or self-defense information was greeted with great interest. However, as previously mentioned, many treatment group participants stated how difficult it was to find information on self-protection or self-defense training programs geared towards older adults. At the end of the six-week intervention, several participants said how much they appreciated the researcher, *believing* they could defend themselves or engage in self-protection. Participants in the treatment group made statements like "I'm not sure I could fight off an attacker, but I would try," while participants in the comparison group made statements such as "I don't know if I could run away, but I would try to get help." Furthermore, treatment group participants who signed up to participate in the study through their local senior center were more apt to want to engage in physical activity, such as self-defense training. Senior center directors often said the participants liked to "get up and move, not just talk."

The participants recount the difficulties with finding age-appropriate safety information (i.e., self-protection information or self-defense information), classes, or programs that hint at a bigger problem. A shared view of older adults by society is the thought that this age group is fragile and unable to protect themselves. However, the notion that older adults cannot engage in successful self-protection is simply untrue and a form of ageism. Ageism is defined as attitudes towards older adults that often devalue them and promote prejudicial attitudes (Henderson et al., 2003). Commonly, the ageism and devaluation experienced by older adults are based upon attributes valued by younger counterparts (Henderson et al., 2003). Prejudicial attitudes towards older adults can then permeate society, having a reciprocal effect on how older adults view themselves (Henderson et al., 2003). Making it difficult for the more aging adult population to believe in their abilities, ongoing achievements, or capability to learn, regardless of age (Henderson et al., 2003).

Limitations

Several limitations were noted that potentially influenced the outcomes of the present study. The study's limitations were three-fold: technology-related challenges, virtual/remote approach use, and instruments. The following is a discussion on each limitation applying to the study.

First Limitation

Technology-Related Challenges

The first notable limitation (and challenge) that could have affected the study's outcomes was the technology used to provide the online, remote interventions to the older adult participants. Although many of the older adult participants reported access and ease of use with various technology (i.e., smartphones, computers, iPads/Tablets, and laptops). Many also

reported difficulty accessing and successfully using the technology required by the present study (i.e., Qualtrics and Cisco WebEx).

Difficulty with using technology. Older adults interested in the study expressed difficulty accessing the recruitment link from the fliers or completing the various surveys in Qualtrics. A common complaint by potential participants did not know how to access the recruitment link from a paper copy of the recruitment flier. The researcher noted other issues involving Qualtrics, including participants accessing and completing surveys more than once or completing the wrong survey. These challenges with Qualtrics could have unduly impacted the results of the study.

Once signed up for the study, participants struggled to successfully use the video conferencing technology (i.e., Cisco WebEx). Some participants struggled to log on to Cisco WebEx or would log on more than once. Other participants struggled to turn on their web cameras or with muting and unmuting their microphones. The researcher noted participants who attended sessions virtually or remotely through their local senior centers seemed to struggle the most with technology (i.e., Qualtrics and Cisco WebEx). Participants who signed up for the study independently and were not associated with a senior center reported fewer technology issues (i.e., could log on without help, needed less technical support, and could use the features successfully).

Senior centers promoting the study often reported difficulty using the technology (i.e., Qualtrics and Cisco WebEx). For instance, one senior center did not know how to download and access the Cisco WebEx software to access the WebEx link. The senior center often logged in more than once to a session and did not understand why or how. Senior center directors or program directors often reported having knowledge of other video conferencing technology (i.e.,

Zoom and FaceTime) but not Cisco WebEx. The lack of knowledge and understanding of the technology led to the need for various technical support. Such support included assistance with downloading the Cisco WebEx software, logging in, and how to use the features successfully. The researcher also assisted by walking some participants through the steps of accessing and completing the surveys in Qualtrics. The technical difficulties experienced by the older adults made it challenging to provide the study interventions (i.e., augmented versus non-augmented). These difficulties also made it challenging to give the older adult participants the pretest and posttest surveys, which could have affected the study results. The lack of significant findings for some of the research questions and variables could have been affected due to the technology difficulties experienced by older adults.

Lack of access to up-to-date technology. Another technology-related limitation was the lack of access to reliable Wi-Fi and up-to-date technology (i.e., computers, smartphones, and laptops). Even though most participants reported having access to a computer or laptop and reliable Wi-Fi, some chose to participate in the study through their local senior center. Some of the reasons for doing so were socialization and group membership. Another reason for participating through the senior center was that the center had more reliable Wi-Fi and the technology needed for the study. However, if a participant missed a session at the senior center, they were less likely to access the study online from home. Many participants reported they didn't have the technology to do so and found it easier to go to the local senior center due to the lack of technology access.

The lack of access to technology was most notable for senior centers in rural areas. For instance, during one of the first sessions, the researcher learned that a senior center in Eastern NC lacked video conferencing technology to participate. The computers at the senior center were

so outdated that the computer monitors did not have a web camera or speaker. Although the participants could see the researcher, the researcher could not hear or see them. Thus, the researcher had to set up web cameras and the software needed for the participants to be able to engage in the study thoroughly. The participants' lack of access to up-to-date or modern technology was a notable limitation.

Similar to the technology challenges, lack of access to technology could have also affected the outcomes of the present study. The present study was provided solely online, making group discussion (i.e., psychoeducation group) and physical instruction (i.e., self-defense instruction) somewhat challenging. A lack of technology or reliable technology may have prevented effective engagement during the psychoeducation group counseling or learning of SD. Thus, the technology issues noted could have prevented participants from reaping the intended benefits of the overall study. Additionally, a lack of access to technology also unduly limited older adults who might have participated from engaging in the study. The difficulties in recruiting and retaining participants could have been impacted by the lack of technology experienced by the older adult population.

Disparity in technology among older adult minorities. A third and final technology-related limitation was the disparity in technology among the participants and senior centers. Specifically a discrepancy between those who reported greater ease of use and access to technology than those who did not. Many participants who demonstrated ease of use and access to technology were often older, white adults who reported a higher education and retirement from higher-paid occupations. Often this subset of participants had the technology needed for the study, required little technical assistance, and participated remotely from home.

Participants who expressed the most technology-related issues and challenges were older Black/African American adults engaging through their local senior centers in rural areas. These participants often reported a lack of higher education and retired from lesser-paying occupations. Whether it is due to the overall cost of modern technology (i.e., computers, laptops, smartphones), many of these participants who lived in rural areas reported living off a fixed income. The lack of financial resources may have contributed to the disparity in technology among these older adult minorities. The disparity noted among marginalized individuals like the study's participants highlights how access to technology is often a privilege afforded by non-minorities that leaves many minorities behind.

As noted with technology-related issues, the disparity experienced by marginalized populations could negatively influence the study's outcomes. Many of the Black or African American participant's technology-related issues included a lack of reliable Wi-Fi, a lack of access to up-to-date computers or laptops, and a lack of access to video conferencing technology (i.e., Cisco WebEx). These issues, along with the disparity or lack of access to technology, could have affected how the Black/African American's effectively engaged in the study. Henceforth, it unjustifiably influences their responses to the assessment or study interventions. The technology disparity between White versus Black/African American participants is a notable limitation that could have unknowingly impacted the study results.

Second Limitation: The Online Remote Delivery of the Study

A second notable limitation that could have influenced the study outcomes could have been the study approach. Specifically, providing the study remotely online versus in person. A common challenge faced by the current research was recruiting older adult participants to engage in an online intervention. During the recruiting process, senior centers, the council on aging

centers, and other older adults initially expressed interest, stating the importance of learning about personal safety and self-defense. However, once they realized the study was provided remotely online, many declined to participate, and some older adults even dropped out of the study due to the remote online procedures.

Many participants reported a preference for an in-person approach, especially those receiving self-defense training. Once some participants completed the remote, online six-week study, they reportedly enjoyed the experience. However, during some sessions and in the final satisfaction survey, many stated that they would have preferred to participate in the study in person, especially those receiving the self-defense instruction. Even the researcher noted some challenges with delivering the interventions remotely online (i.e., engaging participants during the group sessions, teaching self-defense, and promoting proper skill building). An in-person approach would have minimized these challenges and potentially lessened any impact on the study outcomes.

Third Limitation: The Study Instruments

A third limitation noted for the present study that could have influenced the outcomes was the instruments (i.e., FCS, PRCS, and PSE scales) used to assess the older adult participants. A significant limitation of the instruments was the overall length and number of items of each scale. When combined, all three scales used to assess the current study participants consisted of 46-items. If it took one minute per item to complete the scale, it requires a minimum of 46-minutes to complete all three. The length and number of items could have made completing the scales more burdensome and time-consuming for the participants. Many of the participants did complain to the researcher that the scale/surveys were too long and took up more time than they wanted to afford to answer. Therefore, the length of the combined scales and the time needed to

complete them could have led to inaccurate scores, a notable limitation. Some items within the three scales (FCS, PRCS, and PSES) were irrelevant to the assessed population. For instance, some of the questions on the FCS and PRCS asked participants about being approached on the street or being robbed/mugged on the street. The limitation of these questions was many of the older participants stated they did not walk on the street. Many of the older adult participants stated they did not go out in the community very much due to concerns about COVID-19.

The PSES had several questions that were also irrelevant to the older adult population being studied. For instance, some questions on the PSES gauged the confidence levels of participants going to a nightclub, rock concert, camping themselves, or going to an unfamiliar party at night. Most participants did not go out at night, and many reported they hadn't engaged in such activities for decades. The lack of relevance of some of the questions on the scale highlights how questionnaires and surveys are often formulated to assess younger age groups. Another notable limitation was that the FCS, PRCS, and PSES were not made to evaluate the population being studied (i.e., older adults).

A final limitation noted for the three measures was participants expressed difficulty with answering some questions. Some participants reported confusion or difficulty understanding how to answer questions on the scales that weren't relevant to their present life situation (i.e., questions about going to a bar or nightclub, camping alone, or even hiking alone). Participants often rated questions that weren't relevant as 1 for "Cannot Do," which wasn't an accurate assessment of the confidence levels. Although a participant may not *do* that activity, it doesn't mean their confidence level to engage in the activity was low. Therefore, the ratings were notable due to a lack of relevance or understanding of the questions on the scales.

Fourth Limitation: The Group Design

A fourth limitation that could have affected the study outcomes was the lack of a third group or control group. The current study's design and procedures included a treatment group whose data was compared to a comparison group. However, some of the study variables (i.e., PSE) found no statistical significance between the groups. The lack of difference made it difficult to determine if one intervention (i.e., augmented intervention) had more impact than another intervention (i.e., non-augmented). By including a third group (i.e., control group) that received no psychoeducation group counseling or self-defense training could have provided notable between-group results. The lack of a third group or control group was a limitation.

Fifth Limitation: The Manipulation Checklists

A fifth limitation to the study was the lack of inter-rater monitors completing the manipulation checklists. Manipulation checklists were conducted on the augmented (i.e., psychoeducation group counseling and self-defense) and non-augmented (i.e., psychoeducation group counseling only) groups. The manipulation checklists ensured the researcher used MI and OARS techniques, as stated in the methods section. The present study had a singular inter-rater monitor, an LCMHC, complete the checklists. The limitation is that there wasn't more than one inter-rater monitor viewing the same recordings and validating the results. By having only one inter-rater monitor conduct the manipulation checklists, the researcher relied on a singular source to verify if MI and OARS during the group sessions were as stated. The lack of additional inter-rater monitors completing the manipulation checklists makes substantiating the results more difficult. Having more than one inter-rater monitor would have strengthened the study's claim that MI and OARS techniques had been successfully employed.

Sixth Limitation: Regression to the Mean

A final limitation noted for the study was the total fear of crime (TFC) results. The study's findings for TFC indicated that the augmented group (i.e., psychoeducation group counseling and self-defense group) decreased in TFC, pre- to post- the six week study. Whereas the non-augmented group (i.e., psychoeducation group counseling only group) increased in TFC from pre- to post- the six week study. A possible cause for the difference between the two group's TFC is a regression to the mean (RTM). An RTM is a phenomenon in statistics where a variation within the data is viewed as a real change (Barnett et al., 2005).

The findings for the comparison group (i.e., the non-augmented group) may pointedly be caused by an RTM. The non-augmented intervention seemed to result in making the comparison group's TFC worse. The possibility that RTM is a cause of the results is a limitation of the study. There are several reasons an RTM may have resulted in the study's findings. One reason for the RTM may be due to the difference between the participants of the two groups (i.e., augmented group and non-augmented group). The majority of the augmented group participants came from senior centers. In contrast, the majority of the non-augmented group participants were individuals not always associated with a senior center or council on aging. The difference noted may have influenced the results of the study's TFC.

Another possible reason for the RTM is the incongruency in the written responses to the FCS and PRCS scales versus what participants of the non-augmented group (i.e., comparison group) self-reported in the group sessions. The TFC data for the non-augmented group revealed a very low fear of crime at Pretest (Time 1), but the Posttest results (Time 2) revealed a significant increase in their TFC. Many of the non-augmented group participants discussed how much they feared crime and being the survivor of crime. The incongruence between what was reported in

the FC scales versus what the group shared in sessions may be due to a response bias. The response bias may have then resulted in an RTM. As a limitation, the RTM could influence the outcome of the data resulting in a false sense of change within the study's findings.

Implications for Future Research

Conducting a Similar Study In-Person

The current study's findings present several implications and recommendations for future research. The first recommendation for future research is to conduct a similar study *in person*. The current study provided both interventions (i.e., augmented and non-augmented) provided to older adults remotely online through a synchronous video conferencing approach. However, there were several challenges to delivering the study online (i.e., technology-related challenges and limitations to the SD physical instruction). An in-person approach would lessen some of the obstacles noted in the present study. Additionally, recruitment efforts would have been more accessible since older adults expressed an in-person preference for classes and programs. Furthermore, an in-person augmented intervention to study fear of crime among older adults may reveal additional notable findings.

Combining Psychoeducation with Other Types of Self-Defense

A second recommendation for future research is to combine psychoeducation with other forms of self-defense training to study fear of crime. A future study could combine psychoeducation group counseling with a martial arts or reality-based self-defense program. In doing so, the study could see if various forms of self-defense combined with psychoeducation group counseling produced more significant findings for the older adult population. Additionally, future research could compare the results to a control group or other forms of counseling approaches. Researchers using an augmented intervention to study fear of crime among older

adults could compare the results to older adults engaged in physical activity (i.e., exercise or group fitness program) or mind-body intervention (i.e., yoga, meditation, and biofeedback). By comparing an augmented intervention approach to other forms of activities provides a framework for future research to determine if various methods reduce an older adult's perceived risk and fear of crime.

Development of New Measure Instruments

A notable limitation of the current study was the questions and length of the three scales used for the study (i.e., FCS, PRCS, and PSES). The third recommendation for future research would be to develop a fear of crime and a perceived self-efficacy scale to assess the older adult population. A significant limitation of the three scales (i.e., FCS, PRCS, and PSES) is they were developed to assess younger populations, primarily college students and young adults (Liebling, 2006; Ozer & Bandura, 1990). The problem then is some of the questions included in these scales may be irrelevant to the older population and not correctly assess their fear of crime or perceived self-efficacy. One recommendation would be to combine the FCS/PRCS scales with the PSE scale to create a shorter, more concise Fear of Crime and PSE scale for older adults. By developing a new instrument(s) specific to older adults, could provide better insight and understanding of this age group. A new scale could be constructed to counter the current instruments' length and time-consuming limitations. Furthermore, developing scales specific to older adults opposes ageism within research. It also allows future research to generate more pertinent outcomes relevant to older adults.

Evaluating Messages on Crime and Safety Received by Older Adults

A final recommendation for future research is to go beyond the current study by examining older adults' messages on fear of crime. The present study focused on investigating

the influence of an augmented intervention on the older adult participant's fear of crime and perceived risk. The study aimed to evaluate if a particular intervention influenced or led to any change in the participant's self-efficacy or fear of crime. Although, focusing on how to address the fear of crime for this age group was appropriate. By determining the types of messages and the sources accessed by older adults provides insight into the factors influencing their overall fear. Examining the influence of messages promoting safety on the older adult's fear of crime and the impact of such messages (i.e., raising perceived self-efficacy or any mental, physical, and emotional wellbeing benefits) would be beneficial. Examining the effects of positive messages and their sources (i.e., news, television, social media, or word of mouth) can further address fear of crime among older adults and enhance this field of study.

Implications for Counselors-In-Training

There are several implications for counselor-in-training and professionals working to provide services to the older adult population. The current study will highlight three implications of optimizing technology for older adults, countering ageism through empowerment, and offering augmented approaches. The following is a discussion on each implication.

Optimizing Technology for Older Adults

Addressing the technology needs of older adults. The first implication noted for professionals and counselors-in-training is addressing the technology needs and challenges older adults face. COVID-19 has shown professionals from all backgrounds and areas that services can be provided remotely online through synchronous or asynchronous video conferencing. The pandemic forced the world to shift from an in-person approach to providing various services online through video conferencing (i.e., telehealth, tele-counseling, and even physical health and fitness services). One of the significant challenges older adults face is accessing and using

technology to effectively meet their health and wellness needs. For counselors-in-training, finding ways to address technology issues to lessen aging adults' barriers is vital. One of the ways this can be done is by finding ways to increase access to technology for older adults. Whether it is through grants or technology-promotion programs, increasing access by older adults to modern, up-to-date technology. By doing so, counselors-in-training give older adults greater access to a world of resources and services to address their health and wellness needs.

Educating older adults on technology. Another recommendation would be to increase the older adult's knowledge on accessing and utilizing technology. Even though making technology accessible is beneficial, if older adults do not understand how to use it effectively, it is obsolete regardless of the advancement. Therefore, one way of promoting technology's benefits to older adults would be to educate and teach them how to use it effectively. As with any skill-building efforts, older adults would profit from counselors-in-training demonstrating how to access and use technology (i.e., video conferencing technology, apps, websites, online appointment reminders, or electronic records) before using the technology to provide services. Counselors-in-training could provide older adults with psychoeducation information combined with training (i.e., an introductory course) on the technology used before delivering services. By educating older adults on use, the counselor-in-training and professional promote independence and invest in the more aging adult population. Showing older adults *how* to access and further educate themselves on technology facilitates future growth and effective use of technology. Whether identifying the barrier or technology need or offering resources for providing access to technology, counselors-in-training will need to be creative and resourceful.

Addressing the technology needs of senior service providers. A third technology implication for counselors-in-training and professionals is recognizing and addressing the

technology needs of senior service programs. The senior centers that participated in the current study encountered technical issues that made engagement in the study complex. Some challenges included a lack of technology or up-to-date technology (i.e., video conferencing technology, web cameras, outdated computers, and poor Wi-Fi connection) or a lack of knowledge about using the technology effectively. One of the ways counselors-in-training can assist the older adult population if providing services in a senior center setting is to address these challenges for services to be effective. One way counselors-in-training can do this is by advocating for access to modern or up-to-date technology, demonstrating effective use of the technology, and educating on the benefits of future use. By doing so, counselors-in-training and professionals enable senior centers and organizations to expand and provide valuable services.

Countering Ageism by Empowering Older Adults

Raising perceived self-efficacy and confidence levels. A second implication for counselors-in-training is finding ways to counter ageism by using various methods to empower older adults. One of the ways counselors-in-training can counter ageism is by raising older adults' perceived self-efficacy or confidence levels. Regardless of the focus, finding ways to increase SE in older adults can counter ageism's adverse mental, emotional, and physical effects. Some ways this can be done involve offering therapeutic interventions that promote mastery experiences of skill, regardless of the activity or age of the individual. Another way would be to provide success stories and messages involving older adults to promote vicarious learning and observation. Exposing older adults to such stories and messages may enhance their belief that they can achieve or perform the task, goal, or behavior. Thus, raising their self-efficacy or confidence levels empowers the older adult to believe they too can do, be, or achieve.

Promoting safety and self-defense among older adults. A way to empower older adults is to promote education, training, and messages on safety and self-defense. As previously discussed, a common stereotype is that older adults are vulnerable and unable to engage in self-protection. However, the present study and other researchers (i.e., Sanders, 2014; Sanders & Murray, 2018) have found this untrue. Counselors-in-training can counter ageist stereotypes by encouraging older adults to seek safety and self-defense training and information, whether participating in an introductory self-defense class or enrolling in a martial arts class for older adults. Promoting physical skill-building and self-defense training gives older adults the physical capabilities and tools to protect themselves. Counselors-in-training offering safety information should give older adults the knowledge and understanding of *how* to proactively and effectively engage in self-protection. By advocating and promoting safety and self-defense, counselors-in-training empower older adults to believe in their abilities and counter their personal beliefs on ageism.

Development of a safety and self-defense pamphlet. Another way to promote safety and self-defense information is to develop and offer valuable resources. Counselors-in-training may need to go beyond providing generic information on safety and self-defense for counselors-in-training and professionals. As noted by the present study, many older adult participants were already aware of and using the safety tips covered in the psychoeducation curriculum. Counselors-in-training should develop and offer safety and self-defense resources specific to older adults to empower and enable self-protection among older adults. A well-developed pamphlet or booklet relevant to an older adult's safety and self-defense needs could be used to counter ageist beliefs and promote personal self-growth.

Offering Augmented Interventions

Therapeutic interventions with physical interventions. The final implication for counselors-in-training for working with older adults is to go beyond the traditional approach of providing therapeutic services. Even though conventional services (i.e., individual counseling or group counseling) may be all that is needed to address the older patient's needs. By combining services with physical interventions, counselors-in-training could promote further change through the therapeutic process. For instance, combining individual counseling with a mind-body approach (i.e., yoga, Tai Chi, deep breathing, or mediation) may enhance the counseling experience for the older adult. Additionally, offering a physical component (i.e., self-defense, walking, jogging, water-based activities, golfing, dancing, weight-lifting, or even gardening) promotes the physical health and wellbeing of the older adult while providing mental and emotional benefits. Including a brief physical activity with therapeutic counseling, the approach can be a holistic approach for counselors-in-training to address all the individual's needs (i.e., mental, emotional, and physical).

Present meaningful interventions to older adults. A final implication for counselors-in-training offering augmented approaches is to ensure interventions are meaningful to older adults. One of the things counselors-in-training should do is consider the ‘whole’ person when providing services. For those counselors-in-training working with older adults, it is vital to consider the whole-person receiving services and what they find meaningful to do. A common mistake is to assume that the older adult would engage in any activity offered or older adults only like specific interventions and activities due to age. For instance, it may be assumed that older adults do not prefer to engage in rigorous physical activities (i.e., aerobics, running, or martial arts). The current study noted that many older adults expressed further interest in taking

an in-person self-defense class. Those in the treatment group weren't hesitant to perform the self-defense techniques (i.e., punching or striking). Often assumptions about older adults are made because the counselor-in-training doesn't understand the needs, goals, and desires of the older adult receiving services. By offering interventions meaningful to the older adult, the counselor-in-training lessens bias, counters ageist assumptions, and promotes the older adult's overall health.

Conclusion

The health and wellness of the aging in the United States will be a focus of research as this population grows. Finding ways to meet the growing needs of this population segment will be essential to providing quality care and services. The present study sought to contribute to the current knowledge base by studying perceived self-efficacy, fear of crime, and perceived risk of crime among older adults. The study aimed to determine if augmenting psychoeducation group counseling with self-defense training had a significant influence. The study's findings noted participants reported an increase in perceived self-efficacy (PSE), regardless of intervention. The results also showed that although the treatment group decreased in total fear of crime, the comparison group's total fear of crime increased. A more in-depth analysis showed a decreased fear of personal crime for both groups but increased perceived risk of personal crime for the comparison group. PSE was also revealed not to predict total fear of crime. Yet, PSE SDSE was found to be a predictor of total fear of crime for the treatment group. The findings can conclude older adults benefit from receiving psychoeducation safety information in a group setting, especially if combined with self-defense training. Future research would benefit from studying the influence of combining psychoeducation safety group counseling with SDSE on older adults. In addition, counselors-in-training would benefit from findings ways to empower older adults

through similar interventions that counter ageist assumptions besetting this age group. Empowering older adults to *believe* in themselves will lessen their perceived vulnerability and strengthen the contrary among younger age groups.

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Appendix

APPENDIX A: RECRUITMENT PROCEDURES

Recruitment procedures. The study sought to recruit a total of 30-participants, 55 years of age and older. Those recruited for the study were randomly assigned to either the treatment group or psychoeducation group counseling and self-defense group (n = 15) or the comparison group or psychoeducation group counseling group only (n = 15). Participants will be recruited through various online and other methods. Specifically, the study will be advertised by various means, from social media platforms to flyers and mass emails. A link will be provided within the recruitment material for participants to sign-up for the study. Additional details are provided later in the appendix. The following table (i.e., Table 21) lists those platforms, although the study is not limited to just these platforms.

Table 21

Recruitment Platforms

Recruitment Platform	Example of Platforms
Social media Platforms	• Facebook • Instagram
Newsletters	• Council on Aging newsletters • Senior Center newsletters • Parks and Recreation newsletters
Advertisements	• Flyers and handouts

	• ECU mass email • Council on Aging mass email • Senior Center(s) mass email
Various organizations	• Council on Aging organizations • Senior Center organizations • City of Greenville • Parks and Recreations • East Carolina University

Note: Table 21 gives an overview of the recruitment platforms that might be used to recruit participants.

As previously stated, a link will be provided within the recruitment material. The link will connect participants to an online platform (i.e., Qualtrics) that will be used for the following: (a.) sign-up prospective participants, (b.) provide the IRB form to gain informed consent, (c.) gain demographic information, (d.) gauge availability (i.e., days and times), and (e.) screen participants based on inclusion criteria. Potential participants will need to review and provide verbal consent to the IRB before completing all the screening documents or before any data can be collected. The inclusion criteria for the study have been provided below in Table 22.

Table 22

Inclusion Criteria for Participation in the Study

Inclusion	Criteria Standard	Measured By
Age criteria	• Participants will need to be at least 55-years of age and older	• Demographic survey
Physical readiness criteria	• Gauges whether an individual is physically ready to engage in a new physical activity or exercise	• Physical Activity Readiness Questionnaire for Everyone (PAR-Q+)
Mental and emotional criteria	• Participants will need to be emotionally and mentally stable enough to discuss and process various safety topics and concerns when engaging in the psychoeducation group counseling or self-defense training.	• Demographic survey
Technology criteria	• Participants will need access to technology that supports remote online	• Demographic survey

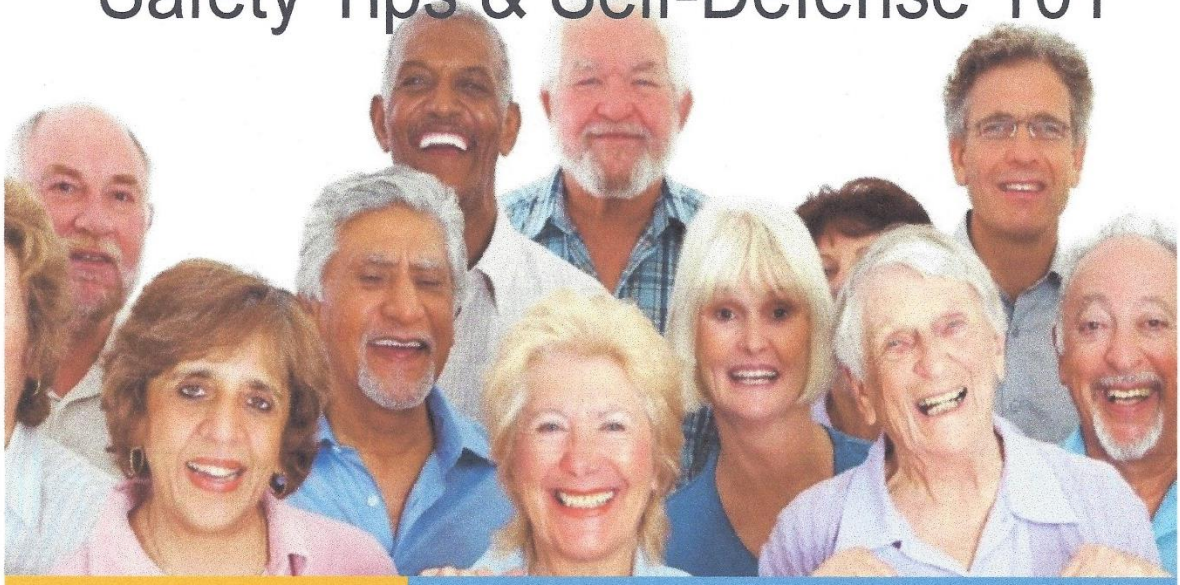
	video conferencing to engage in the study and completion of each measure. • The technology that the participant uses (i.e., computer, tablet, iPad) must be able to support the following online platforms and software: Qualtrics and Cisco WebEx. • Qualtrics will be used by participants to review and complete various consent documents and study measures (i.e., surveys and questionnaires). • Cisco WebEx will be the online platform to provide group counseling sessions and self-defense training.	

Note: Table 22 outlines the inclusion criteria for the current study and how each will be assessed or measured.

Once all basic information, participants' availability, and verbal consent to the IRB have been given, participants will be randomly assigned to one of the groups (i.e., treatment versus comparison group). Upon being randomly assigned to one of the two groups, the first session will be scheduled. Before starting the first group session (i.e., treatment versus comparison group session), participants will be required to review and agree to the consent form (i.e., IRB). Competition of the screening procedures and consent documents will be necessary for the participant to be included in the study.

APPENDIX B: RECRUITMENT FLIER

Safety Tips & Self-Defense 101



PROGRAM DETAILS

- **WHERE**:
  Below is a participation link to sign-up for the research study
- **Link:**
  https://ecu.az1.qualtrics.com/jfe/form/SV_er1s3DlWiWd2aVg

- Program details:
  - One session a week, for a total of six-weeks
  - Each session is 60-minutes in length
  - Sessions will be conducted in a small group setting.
  - Program is provided remotely online at your convenience.
  - Assessments used to evaluate progress will be provided online, for your convenience.

- Criteria to participate includes:
  - At least 55-years of age or older
  - Being physically, emotionally, and mentally able to engage in the program
  - Access to reliable Wi-Fi and technology to participate online
  - Complete various assessments online.

Senior Safety: Becoming Fear-less

Fear of crime or being the victim of a crime, both at home or in the community, is a concern many older adults share. Often one can read or hear news stories identifying older adults as the target of burglary, property crimes, or even assault. Yet, what if there was a way to empower yourself to address such concerns or fears?

If your interested in increasing your safety skills, then "Safety Tips & Self-defense 101' is for you. It's an online 6-week program providing group discussion and educational information on personal safety, home safety, community safety, financial safety, and even various self-defense techniques; from verbal and mental self-defense to physical self-defense techniques. The aim of the program is to assess any change in fear of crime, perceived risk of crime, and perceived self-efficacy to address crime or unsafe situations.

For further information, please contact Ms. Meg Sanders,about the program at Sandersm05@students.ecu.edu or access the following link provided to sign-up. **Please Note**: all participants will be required to complete a physical readiness questionnaire, meet the program criteria (listed on the left-hand side), commit to participating all six-weeks, and complete various assessments online. I look forward to your participation!

Let's become fear-less together!!

To Participate Access the Link Below:

https://ecu.az1.qualtrics.com/jfe/form/SV_er1s3DlWiWd2aVg

APPENDIX C: GROUP PROCEDURES

The following provides is an overview of the procedures for both the treatment group (i.e., psychoeducation group counseling and self-defense group) and comparison group (i.e., psychoeducation group counseling only group). The overview provides information on the length and duration of the groups, group interventions, measures and variables, instruments or assessments, and other procedures. Additional details on the procedures of each group are also provided in Chapter 3: Methods section. Table 23 provides an overview of the group procedures.

Table 23

Overview of Group Procedures

	Group Procedures	
Procedure	**Treatment group:** Psychoeducation group counseling and self-defense training group	**Comparison group:** Psychoeducation group counseling only group
Length of study	6-weeks	6-weeks
Total number of sessions	6-sessions, one per week for a total of six weeks	6-sessions, one per week for a total of six weeks
Length of session	60-minutes	60-minutes
Location of group session	Group sessions were conducted online through the use of Cisco WebEx	Group sessions were conducted online through the use of Cisco WebEx
Instructor	Primary researcher	Primary researcher
Group design	The treatment group will receive psychoeducation group counseling along with self-defense training	The comparison group will only receive the psychoeducation group counseling

Procedures for each	The first 30-minutes of the group session will provide psychoeducation group counseling. The last 30-minutes consisted of basic self-defense training	The entire 60-minutes of the session will consist of psychoeducation group counseling, only
Psychoeducation procedures	Treatment group: The psychoeducation group session occurs during the first 30-minutes of the session and will be shorter than the comparison group due to the added self-defense training. A total of six safety topics will be covered throughout the six-week study. The following is an overview of how the shorter sessions might occur: • A brief 5-minute check-in at the beginning of the session. • The check-in was followed by a brief 5 to 10-minute overview of the safety topic for that week.	Comparison group: The psychoeducation group session will occur for a total of 60-minutes and will cover six safety topics throughout the six-week study. The following is an overview of how the session might occur: • A brief 10-minute check-in at the beginning of the session. • The check-in was followed by a 20-minute discussion on the safety topic for that week. • Then the group will process for about 20-minutes any thoughts or feelings about what was discussed. • The session concluded with a 10-minute summary of what

	• Then the group will process the information for approximately 10-minutes. • The session concluded with a 5-minute summary of what was learned/discussed/processed and what's to occur at the next session.	was learned/discussed/ processed and what's to occur at the next session.
Psychoeducation techniques employed	Motivational interviewing and OARS techniques will be utilized during the session to promote ongoing engagement and discussion from the participants. OARS includes using open-ended questions, affirmations, reflections, and summaries to elicit further engagement.	Motivational interviewing and OARS techniques will be utilized during the session to promote ongoing engagement and discussion from the participants. OARS includes using open-ended questions, affirmations, reflections, and summaries to elicit further engagement.
Self-defense training procedures	The treatment group will be provided basic self-defense training during the final 30-minutes of the group session. Participants assigned to this group will be taught self-	The comparison group will not receive any physical self-defense training. Instead, self-defense topics and techniques will be

	defense techniques that they can use, if needed, to defend themselves during an unsafe situation. A new set of self-defense techniques will be taught each week and built upon the techniques from the previous session to promote mastery experiences. Self-defense techniques taught to the participant will include: basic strikes and blocks, advanced strikes and blocks, knee strike, elbow strike, grab defense, and combining techniques.	presented as part of the psychoeducation safety curriculum
Self-defense teaching techniques employed	Implicit learning techniques will be used to promote mastery experiences and skill acquisition. Implicit learning techniques to be employed include the use of analogies, cue words, errorless learning, and self-defense or attack scenarios.	The comparison group will not receive any physical self-defense training. Instead, self-defense topics and techniques will be presented as part of the psychoeducation safety curriculum

Integrity check	A manipulation check will be employed to ensure the integrity of both the psychoeducation group procedures and self-defense group procedures. A third-party member of the dissertation committee will review a minimum of two recorded sessions for each group. As they observe the recordings, they will use the psychoeducation manipulation check form to ensure the procedures and techniques (i.e., Motivational Interviewing techniques and OARS) outlined for each intervention (i.e., augmented and non-augmented approached) have been met. Consent for digital video and audio recordings will be obtained once participants sign the IRB, before the first group session as part of the consent procedures.
Measuring both groups	Both groups will be measured and assessed at two different times: Time 1 and Time 2. Time 1 will occur at the beginning (pre) or before the first session, and Time 2 will occur at the end (post) of the last session.
Variables to be measured	Both groups will be assessed on the dependent variables of the study. The two dependent variables of the study are: • Fear of Crime • Perceived Self-Efficacy
Instrumentation	The study will use three different instruments to assess both groups' fear of crime and perceived self-efficacy. Those instruments include: • Fear of Crime Scale (FCS) • Perceived Risk of Crime Scale (PRCS) • Perceived Self-Efficacy Scale (PSES)

	Participants from the treatment group will also be assessed for skill acquisition of the self-defense techniques they've learned. The following instrument will be used to assess participants: • Self-Defense Skills Test (SDST) Again, these instruments will be given at Time 1 (i.e., beginning or pre the first session) and at Time 2 (i.e., end or post the final session). The total scores of the FCS, PRCS, and PSES will be used to answer the research questions. The central tendencies and any significant findings of the SDST will be provided in Chapter 5 (i.e., the Discussion chapter).

Note: Table 23 provides an outline of the group procedures for both the treatment group (i.e., augmented group) and comparison group (i.e., non-augmented group).

APPENDIX D: PSYCHOEDUCATION SAFETY CURRICULUM

The following is an overview of the six safety topics covered during the psychoeducation group counseling session. Each topic focuses on a specific aspect of safety with corresponding information. The aim of presenting these six topics is to provide safety information that empowers individuals to maintain their safety and well-being in various settings (see Table 24).

Table 24

Psychoeducation Safety Curriculum

Week	Safety Topic	Safety Information Covered
1	Personal Safety	**I. When thinking of self-protection (How can I protect myself?)** **1. Play It Smart!** 2. Trust your gut! 3. Carry only what is necessary and keep cash to a minimum. 4. Be mindful of wearing expensive jewelry or item, which might attract attention, or someone might take notice of 5. Try to not carry too much at once when shopping 6. Try to consider all the exit routes, to and from your car, home door, store, etc. 7. Strategically moving so furniture, your car, outdoor décor, shopping cart, etc. is between you and a stranger, strange vehicle, animal, etc., can help protect you **II. Awareness is Key!** 1. Criminals look for easy opportunities (i.e., burglary, muggings, fraud, purse snatching) and targets (i.e., alone, at night, etc.), so think about ways to make it less easy! *2. Remove any possibility of an opportunity, and here is how.* 3. Stay alert 4. Remain aware of your surroundings at all times 5. Awareness includes… a. Your Personal space i. Identify your comfort zone ii. You define what your personal space is, not others

		iii. If you do not want someone in your personal space, tell them in a firm but kind manner b. Of Others i. Pay attention to those around you and what they are doing ii. Take notice of any strangers walking close, nearby, or towards you iii. Maintain your distance or create distance between you and anything, someone or something, making you feel unsafe iv. If living alone, do not let anyone you do not know into your home, regardless 6. Your Surroundings a. Pay attention when walking to and from your car b. Remember your route to and from your car/store/etc. c. Consider all the exit routes of a location, or have a plan; in case d. Remember distraction-free when walking (e.g., turning off the phone, keeping the phone in your purse, making a point of focusing on your point of destination, etc.) III. Keep You & Your Environment Secure 1. Carry your purse either in front of you or under your arm 2. Consider wearing a fanny pack or anti-theft purse/shoulder bag 3. Never open your door to a stranger 4. Lock your doors, regardless if you are home 5. Don't be afraid to ask for help or assistance, if you feel unsafe 6. Use a peephole to identify a stranger at the door and only open it a few inches; if you feel comfortable doing so. 7. At night, draw curtains and blinds as well as lock windows 8. If you have a sliding glass door, keep a stick/rod down inside the doorframe
2	Verbal SD	I. Words of Power: How to protect yourself using your words.

		1. Verbal self-defense involves the use of words, verbal statements, tone of voice, and body language to evade or stop an aggressor 2. Words have power, so don't be afraid to use them. Speak Up! 3. Remember, no type of appeasement (i.e., silence, excuses, placating, complying, etc.) works. 4. It is okay to be direct and straightforward with your words 5. You DO NOT have to be accommodating or nice. 6. Don't be afraid to raise your voice in a controlled manner. 7. Don't be afraid to look a person in the eyes and if confronted, try not to lower your gaze 8. Try to refrain from talking too fast to remain coherent 9. Use statements that draw attention to your situation, such as… a. "Fire!" "Stop!" "I'm being attacked, call 911!" "This person is [fill in the blank] me!" "Get your hands off me!" 10. Use statements that state clearly what YOU want to happen, like… a. "Stop…I said Stop!" "No! "I said No!" "I said leave!" "Leave now!" "Don't come any closer!" "Take your hands off me!" II. De-escalation Techniques 1. Refrain from using obscenities, curses, insults, or any language/words that could provoke 2. Use a calm but strong tone of voice. 3. Remember, shouting (which is different from raising your voice) could escalate the situation. 4. Keeping an open, relaxed body posture with your hands up/open conveys you are not the aggressor 5. Acknowledging how the person feels (i.e., "I can see your upset.") can help 6. Avoid arguing back or yelling back at the person 7. Repeat calm phrases and questions (i.e., "Let me help." "Can I help?") 8. Don't challenge the person or make threats III. Using Body Language to Communicate Safety 1. How one uses body language to protect yourself is key: a. A person's body language (e.g., body and face) can tell us so much.

		b. Pay attention to their face c. What is their facial expression? d. Are they smiling? e. Is the jaw clinched? f. Are they frowning/scowling? g. Pay attention to their body posture 2. What does their body signal to you? 3. Is their fist clinched? 4. Is their body stiff vs. relaxed? 5. Are their arms crossed, on their hips, or are they open and relaxed? 6. Pay attention to what a person is doing with their hands, arms, and feet IV. Body-Language to Defend Ourselves: Remember the body conveys a message…a signal to others! So, remember the following; 1. Keep a confident, relaxed body posture (refrain from slouching)…walk with confidence, shoulders straight, or keep your chin up - even if you don't feel confident 2. Look people in the eyes/ make eye contact, if approached or see someone approaching 3. Walk in a normal stride and at a comfortable pace 4. Try not to clutch your belongings too tightly. Signals you're nervous 5. If approached, put your hands up in a defensive manner V. Remaining Calm Under Pressure: 1. Use deep breathing techniques 2. Take deep, slow breaths 3. Place your hand on your heart, and tell yourself, "I am safe." 4. Focus on what you want to happen 5. Focus on a course of action 6. Try to refrain from focusing on non-material concerns (i.e., what others will think, about your belongings, about how you'll be perceived, etc.) 7. Place your hand on something to stay grounded and balanced 8. Try to remain physically relaxed as best as possible

3	Community Safety	I. Community Safety 1. <u>Be aware of your surroundings at all times</u> 2. Don't leave your wallet/purse/bag unattended 3. Carry only what you need and keep your purse/bag light or easy to carry 4. Consider draping your purse/bag in front, across your chest, rather than over your shoulder 5. Use the child safety harness on the shopping cart to secure your purse/bag 6. Place your purse in the car first before loading bags or groceries into the vehicle's trunk or backseat 7. Avoid lingering around isolated or dark areas (i.e., alleyways, empty bus stops, rest stops at night, rural gas stations, etc.) or other high-risk areas, if possible 8. If going shopping or out at night, ask a family member or friend to go with you –OR - tell someone where you are going, when, and approximately when you get back 9. Consider carrying your car keys in your hand when returning to your car so that you can unlock it with ease 10. Again, walking in a crowd or near others can keep you safe 11. Use your car as a self-protection tool by putting it between you and a stranger, another car, an animal, etc. 12. Street precautions: Walk close to the curb and avoid walking in front of doorways, alleyways, bushes, etc. II. Car and Transportation Safety 1. Keep your car keys within reach (i.e., in your pocket, in your purse, etc.) at all times 2. Make sure your vehicle always has plenty of gas, at least a half-quarter of a tank 3. Pay attention to any suspicious activity around your car (i.e., animals, strangers, noises, etc.) or anyone approaching you, your family/friends, your car, etc. 4. As soon as you get into your car, lock your doors 5. Don't roll your window down if someone approaches your car, and IF you do roll down the window, do so by only a few inches; only IF you feel comfortable and safe in doing so 6. Travel down well-lit, busy roads, and know the route to your destination 7. Park in well-lit areas where there are other cars/people nearby

		8. Keep valuables out of sight in your vehicle. Lock them in the trunk or glove compartment, or cover them so others can gain access or see them 9. If you need to pull off, do so at a busy/highly populated gas station, store, etc. 10. If traveling by public transportation, move and hold your purse/bag in your lap or in front of you with both hands 11. Try not to fall asleep when using public transportation (i.e., bus, subway, taxi, etc.) 12. Take note of public places (i.e., police department, urgent care centers, etc.) you can access along your public transportation route if you should suddenly need help 13. Keep an emergency kit in your car that includes a first aid kit, blanket, flashlight, bottled water, list of emergency contacts, etc. III. Create a Buddy System or Neighborhood Watch 1. Create a buddy system: Going shopping or out in the community with a friend/family member (a.k.a., the buddy system) can be a great way to prevent in-store crime incidents. Older adults are less targeted when with someone when out in the community than when alone. It also promotes socialization along with support and helps prevent the probability of being targeted by criminals. 2. Create a neighborhood watch: To increase safety in your neighborhood, think about organizing a neighborhood watch 3. See if neighbors are willing to watch out for you, letting them know you'll do the same 4. Report suspicious activity (i.e., strangers lurking, strange noises or sounds, cars not readily identifiable, etc.) IV. Do's and Don'ts of Interaction 1. Trust your instincts regarding a situation, person, place, or event occurring! 2. Don't be afraid to leave if someone or something makes you feel unsafe. 3. Don't be afraid to say 'No,' not answer a question/demand, or ignore a request if someone you don't know is approaching you to ask something of you, ask for assistance, requesting your help, etc.

		4. Do ask for assistance from store staff/security/managers, if you feel threatened or unsafe 5. Do pay attention to how a person says something 6. Don't give any personal information to strangers, unknown salespersons, etc. 7. Do be smart when responding to a demand, if given by a stranger a. If a stranger is demanding you open your door, don't at all costs! b. If a stranger is demanding your purse or wallet given it, doing so may de-escalate the situation 8. Don't try to protect your belongings. 9. If physically attacked, fight off the attacker to the best of your abilities! Then go and get help!
4	Mental & Physical SD	I. Mental Tips for Staying Calm 1. Mastering the mental game is key to responding successfully 2. Remember to breathe and take slow, mindful breaths 3. Focus on your breathing while paying attention to the situation 4. In-hale with intention and ex-hale in a conscious manner to re-focus your attention 5. Remember to not 'overreact.' How you 'react' can either help or hinder the situation 6. Use 'Positive Self-Talk' to talk yourself through the situation. Tell yourself what you CAN DO, not what you can't! 7. Force a 'smile,' doing so will help you break out of negative thought patterns, change your attitude 8. Keep your pace of movement at a comfortable tempo or speed II. Maintaining Mental Awareness 1. Trust your intuition or "gut," it will alert you when something is wrong 2. Keep focused on the desired goal or outcome 3. Recognize when you're losing control and bring yourself back 4. Focus on what you CAN control, not on what you can't (i.e., what can you do at the moment to remain safe…leave…get help….) 5. Slow down and trust your training! 6. Expect the unexpected 7. Keep your muscles relaxed, and try not to tense up

		8. Using ‘keywords (or power-words)’ like “easy,” “calm,” “breath,” or “focus” can help lower your anxiety 9. Try to remain mindful by focusing on the “here and now.” III. Building Mental Toughness or Mental Strength 1. Practice what you’ve learned; verbally, mentally, and physically 2. Using mental imagery or visualization of self-defense scenarios is a great way to practice how you might respond to a situation 3. Being proactive is better than being reactive 4. Mastering your mind, thoughts, and feelings will help you remain calm and in control 5. Developing mental strength takes time, so be patient 6. Talk yourself through your fears or anxieties and ways you can address them 7. Use visualization techniques to practice what is learned IV. Self-Defense Tools – To Use or Not to Use! Comply with State Law! 1. Self-Defense Accessories 2. Alarms 3. Emergency Whistles 4. Pepper Spray or Mace 5. Stun Guns and Tasers 6. Steel Batons 7. Tactical Pens 8. Non-traditional Accessories 9. Cane 10. Walking stick 11. Walker 12. Keys 13. Using other weapons or tools 14. Household items 15. Non-traditional tools (i.e., flashlight, umbrella, pens, pencils, etc.) 16. Baseball Bats 17. Brass knuckles (legal or not) 18. Other tools V. Basic Self-Defense Techniques

		1. *Basic block(s)* –bringing both hands up in an "X" formation right above your forehead can be used to protect and deflect a punch 2. *Basic strike(s) or punch(es)* – use the heel of your palm or a hammer fist when striking. An elbow strike is also effective if you do it correctly. 3. *Areas to strike* – go for vulnerable areas. Striking at key areas will ward off an attacker quickly, such as the face, eyes, nose, neck, or throat (e.g., vulnerable areas). Strikes to the body rarely stop an attacker 4. Specific strike techniques can redirect the attacker's attention. For instance, striking the eyes can interfere with their vision, or striking at the neck can cause them to back away 5. If using a cane or walking stick – strike lower areas on the body, like the groin, knees, and even the ankles 6. Once you commit to a technique, don't stop following through! 7. Use your whole body and leverage your weight to maximize a technique 8. Everyday objects can be used for self-protection (i.e., keys, umbrella, pen, etc.) 9. Know engaging in physical self-defense should be your last option
5	Home Safety	I. Inside the Home 1. Remove clutter blocking your way a. Declutter your house. Less clutter reduces the risk of falls b. Make sure you have plenty of space to walk around, from room to room c. Ensure nothing is blocking the exits of your home (i.e., front or back door, garage door, etc.) 2. Lighting a. Make sure each room, even closets and pantries, have adequate lighting b. Ensure proper lighting inside near the front door, back door, garage door…anywhere you might enter or leave your home. c. Use nightlights to make areas like hallways, stairways, etc., more visible. d. Make sure the light beside your bed is easy to reach and accessible

		e. Keep more than one flashlight in various places throughout your home (i.e., kitchen, bedroom, bathroom, car, garage, etc.) 3. Doors & Windows a. Always keep your doors and windows locked, even when you're home b. Keep garage and basement doors also locked at all times c. Use your door viewer or peephole to see who's at the front door d. Use and install easy-to-use deadbolt locks e. Have new locks installed when moving into a new home f. Keep blinds and curtains drawn, especially at night g. Reframe from leaving windows open at night 4. Fall Prevention a. Make sure rugs or doormats have anti-slipping pads b. Use cord covers for cords and cables that might be a fall hazard, or secure them behind furniture c. Using anti-slip socks or slippers when walking can prevent falls on slippery surfaces, such as tile or polished hardwood floors II. Outside the Home 1. Remove clutter outside a. Declutter around your home, such as the driveway, porch, deck, and stairs b. Make sure outside furniture is not blocking your walkway or exit routes 2. Lighting a. Make sure there is proper or bright lighting at your front door, porch areas, back door, outside of the garage, etc. 3. Fall Prevention a. Try to keep the yard free of debris or tripping hazards, such as sticks, branches, pine cones, etc. b. Be aware of protruding tree roots along exit routes, and cover them if possible III. Other Safety Considerations

		1. Keep your house key in a secured lockbox, not under a doormat or rock 2. Don't attach an ID tag to your house keys or keyring 3. Try not to leave notes on your front door indicating you're not at home 4. If living alone, leave the porch light on or a light in an entranceway or other designated place inside. a. Note: Use *power surge protectors* for lights that are kept on to ensure fire safety. 5. Tell a family or friend when you leave, where you're going, and when you might be back 6. Be cautious about letting strangers know you live alone or you're alone at home 7. If expecting a repair or service person to come to your home, consider asking a friend or relative to be present during the visit 8. Ask to see their employee ID of the repair or service person before letting them in the home. If unsure, call the repair/service company to verify the person's identity 9. If someone asks to use your phone, make the call for them instead. IV. Important Safety Items 1. Keep items you often use within reach (i.e., keys, wallet, purse, phone, etc.) 2. If possible, keep your cell phone charged and within reach at all times 3. Keep a list of emergency numbers (i.e., 911, police department, primary physician, family/friends, poison control, etc.) in various places <u>in your home</u> (i.e., kitchen, bedroom, bathroom, etc.) **AND** <u>car</u> 4. Consider keeping a list of the medications you frequently take
6	Security & Other Safety Tips	I. Financial Safety 1. Keep any valuables (i.e., cash, jewelry, papers, legal documents, etc.) in a fireproof/waterproof anti-left safety box or a safety deposit box at the bank 2. Keep a list of all your valuables inside the safety/deposit box

		3. If possible, use direct deposit for checks or incoming payments (i.e., Social Security, disability, retirement benefits, etc.) 4. Be aware of the types of scams targeting older adults 5. Learn the warning signs of financial abuse and who to contact 6. Be mindful of any con or scam artists occurring within your community 7. Know it is okay to be wary of anyone approaching you, at home or in the community, about financial opportunities or questions 8. Realize it is okay to hang up the phone on a telemarketer 9. Refrain from giving out financial information to neighbors, friends, strangers, etc. 10. Never give out bank account, credit card, or other account information to an unsolicited person over the phone, text message, or email 11. Review your bank and credit card statements often for suspicious transactions or activity 12. Report immediately to your bank or credit card company, if you do suspect suspicious activity 13. Do not throw away old mail, bank statements, etc. but rather tear or shred before doing so 14. Try to keep a list of all your accounts, bills, and financial institutions in the safety/deposit box, and have a trusted family member/friend know in case of an emergency 15. Do not discuss, apply, or agree to any loan or mortgage over the phone, in-person, or by mail without consulting a trusted someone or specialist 16. If anyone tries to pressure or force you to give them cash, cash a check, purchase products, provide a donation, provide financial information, enroll in a service, etc. Please report it immediately to II. Cyber Safety 1. Don’t assume strangers online is trustworthy or communicating the truth 2. Refrain from sharing any sensitive information with others (i.e., PIN numbers, passwords, login information, account information, etc.)

		3. Create strong as well as long passwords (ex. Using 12-characters, upper and lower case, numbers, or symbols) 4. Change your passwords often, and do not share your password info 5. Try to use two-step authentication to secure your accounts 6. Pause and think before responding to an email. Emails with a tone of urgency about bank errors, credit card problems, or taxes may be a scam. Call your bank/credit card company directly, if concerned 7. Scams include emails or messages stating you owe money, bank error or issue, credit card issue, a virus that has infected your computer, etc. 8. Delete unsolicited emails or think and pause before opening. The email could be a scam or virus 9. Be mindful of what you share on social media. Sharing sensitive information, pictures, living status, etc. could make you a target 10. Set your internet browser (i.e., Internet Explorer, Google Chrome, Firefox, etc.) to 'Optimum Security.' 11. Turn on and use privacy settings on social media, websites, apps, etc. 12. Consider deleting your browsing history at the end of each session 13. Make sure to use anti-virus and firewall security protection on your computer 14. Log out when possible from your computer, websites, apps, etc.

Note: Table 24 presents an overview of the psychoeducation safety information provided to both groups (i.e., treatment and comparison group).

APPENDIX E: PSYCHOEDUCATION MANIPULATION CHECK-LIST

Psychoeducation Group Counseling Session

Integrity Check-list

The following integrity checklist will be used to assure that the individual overseeing the counseling sessions is applying Motivational Interviewing (MI) techniques. The MI techniques will include the use of OARS (i.e., Open-ended questions, Affirmations, Reflections, and Summaries). A designated third party (i.e., inter-rater monitor) committee will complete the integrity checklist. Ensuring that the counselor is using MI and OARS properly ensures the validity and reliability of the current study.

The inter-rater monitor will use the form to evaluate and assure that MI and OARS techniques are observed being used during the psychoeducation group session. The inter-rater monitor will be provided a recording of the group sessions for both the augmented (i.e., psychoeducation group counseling and self-defense group) and non-augmented (psychoeducation group counseling only group) groups. The inter-rater monitor will then be required to complete the integrity checklist form provided below for that recorded session. Directions on completing the form have been provided below.

Counselor's First & Last Name:_____

Date:_____

Semester/Year:_____

Date of Session:_____

Time of Session (if applicable):_____ (Circle: AM / PM)

Directions for completion of form: Please use a tally mark or **" / "** to indicate the number of times a specified MI/OARS skill or *micro-skills is observed being used during the recorded psychoeducation counseling session. If the reviewer wants to provide any comments, please do so in the 'Comments' section and highlight them in electric purple. Once completed, please email the form to the doctoral candidate, Meg Sanders, at sandersm05@students.ecu.edu and the dissertation committee chair, Dr. Nicholas Murray, at murrayni@ecu.edu. Thank you for taking the time to complete the following integrity checklist.

MI Counseling Intervention(s) and Techniques	**Number of Times Used (*micro-skills)**	**Not Observed**	**Comments**

Use of MI to help address ambivalence and promote change			
Use of MI to build motivation to change			
Using MI to elicit change talk			
*Open-ended questions			
*Closed questions			
*Affirmations			
*General Reflections			
*Reflection of feelings			
*Summarizations			
*Paraphrases			
*Interpretations			
*Confrontations			
*Information Giving			
*Counselor Self-Disclosure			
Problem Identification			
Mutual Goal Setting			
Demonstrating empathic listening skills			

Supporting self-efficacy of participants			
Rolling with any resistance			

Examples of OARS techniques. Below are examples of the primary MI techniques and micro-skills the committee member is being asked to evaluate. The primary MI techniques and skills include open-ended questions, affirmations, reflections, and summaries. The examples and information listed below are meant to provide guidance on observing MI/OARS techniques and micro-skills while completing the manipulation checklist (Hall et al., 2012).

OARS Technique/Micro skill	**Overview of Skill**	**Example**
Open-ended Questions	• Questions asked to elicit more of a detailed response • The questions are not 'yes' or 'no' questions • Questions may start with 'How,' 'Where,' 'What,' etc. statements	I understand you have some concerns about your safety in the community. Can you tell me more about them? I heard you say going shopping by yourself can be scary. What about shopping alone makes you afraid of doing so?
Affirmations	• May affirm the individual's thoughts, feelings, and even action • Can be in the form of compliments • Can be statements of understanding or support • Can be statements in supporting change	I recognize it took a lot of courage to share your concerns today with the group. I can hear from what you've shared that you have a lot of support and resources that can help you address your fears.

Reflections	• The rephrasing of statements to encompass the implicit thoughts and feelings of the individual's statements • Used to encompass the meaning of the individual's statements • Promotes ongoing personal exploration • Assists with helping the individual explore their motivations • A can be used to reinforce the desired change	You are afraid of being assaulted or targeted because of your age, which sounds like why you don't go out much or do things with family members in the community. Even though you have shared that you want to change this. You sound like you were once a very active and outgoing person. You enjoyed traveling and going shopping. Yet, due to the news reports on crime, you've made statements that you are concerned about your safety and want to change by addressing those fears.
Summaries	• Can be used to open a session or 'check in' with group members since the last session • Ensures the individual/group has an understanding of the discussion taking place so far • May identify any discrepancies between what is being stated or the presented situation and the goals of the session or group • Active listening skills are employed and demonstrated to provide an understanding of the individual/group's point of view.	If it is alright with the group, I would like to check in so I understand everything that was shared. Several in the group have stated that personal safety and using self-defense effectively is a concern, especially when engaging in activities out in the community with family or friends. Several had shared some personal experiences when their personal safety was threatened and how that made them feel or change their behaviors. Several shared that they've stopped going out or doing activities

		by themselves. How am I doing so far?

APPENDIX F: WEEKLY GROUP CHECK-IN SURVEY

Weekly Check-In Survey

First & Last Name:_____

Participant ID #:_____

Date:_____

1. Since the last session have you used or applied any of the psychoeducation safety information discussed?
2. If so, what was the safety information you used?
3. Did you feel comfortable using or applying the safety information?
4. Since the last session did any new concerns, thoughts, or questions come up regarding your safety (i.e., personal safety, community safety, home safety, financial or cyber safety)?
5. If so, what were they?
6. How do you feel so far about the psychoeducation safety information you're receiving?
7. Since the last session have you used or practiced any of the self-defense techniques practiced or discussed?
8. If so, could you briefly tell me how the practice or use of self-defense went?
9. Did you feel comfortable using the self-defense techniques practiced or discussed?
10. How do you feel about the self-defense training and techniques you've learned?
11. Is there anything else you would like to share before the next session?

APPENDIX G: WEEKLY GROUP CHECK-IN RESPONSES

The participants of both groups were provided a weekly group check-in to assess for any thoughts, feelings, concerns, or questions they might have since the last session. The following is an overview of the comments and responses provided by the participants of both the treatment and comparison groups.

Group	Response No.	Responses by participants to weekly check-in questions
Treatment group	*N* = 13	***1. Since the last session have you used or applied any of the psychoeducation safety information discussed?***
		n = 7, Yes
		n = 6, No
		Comments:
		"Yes, I have been practicing the moves that you showed us."
		"Have not had the opportunity."
		"In discussions with others."
		"Practiced."
		"Not really. I do make an effort to be aware of my surroundings when I'm out and about alone, both daytime and night."
		"Sorry I haven't."
		2. If so, what was the safety information you used?
		n = 6, No response
		Comments:
		"I also have been trying to be more aware of my surroundings when I am out by myself."
		"I am trying to change handbags to one with a long strap that will loop across my body. It's challenging because I've been using a largish bag that holds everything I could possibly need for cross country trips (which I'm not making). The handbag I tried yesterday which was fine

many years ago (apparently since I have it in 3 colors), makes it hard to pull my fat wallet out. This makes me more of a target. I'm trying a bigger bag today with a long strap. It's leather so it's heavier than what I'm used to.
“When I walked the other day, there was a work crew around. I carried my umbrella that pops open for security. Also, I located my "weapon" pen that my dad sent me years ago. I'm going to find tips on how to use it.”
“Practiced the techniques and shared information.”
“Practiced self-defense moves and discussed community safety issues in general.”
“Elbow punch”
“Practiced application of techniques, watched videos and looked at use of free apps for home security with old phones.”

3. Did you feel comfortable using or applying the safety information?

n = 9, Yes.

n = 4, No response

Comments:
“If I had to use some of the methods, I believe that I will feel comfortable using those methods taught to us.”

4. Since the last session did any new concerns, thoughts, or questions come up regarding your safety (i.e., personal safety, community safety, home safety, etc.)?

n = 1, Yes.

n = 12, No

5. If so, what were they?

n = 1, Response

n = 12, No response

Comments:

“I'm not really paranoid about my living situation but I do lock my door when at home. I live in a second floor apartment with an entry off of a hallway rather than outdoors.”

6. How do you feel so far about the psychoeducation safety information you’re receiving?

n = 13, Responses

Comments:
“It's very valuable information and good to keep safety in mind.”
“I am excited to learn more ways to protect myself.”
“Feel that the subject matter is beneficial.”
“I think it's very helpful. Some of it is common sense, but it's good to have safe behavior explained in the context of a class.”
“I am delighted.”
“It's good. I've been practicing using a smaller cross body handbag. This is better than the 2 handle over the shoulder carryall that I've been using for over a year.”
“I think it's very helpful and important.”
“I am learning techniques and learned not to yell for "help" and instead use another verbal request for assistance.”
“I am learning techniques and learned not to yell for "help" and instead use another verbal request for assistance.”
“I appreciate the information.”
“I am finding the information useful and have shared it with others.”
“All of the information provided has been useful.”
“Very helpful if I should have to use it. Thank you so much.”

7. Since the last session have you used or practiced any of the self-defense techniques practiced or discussed?

n = 8, Yes

n = 5, No

Comments:
“I reviewed the hand strike techniques.”
“I practiced a light "Parry and Punch" section.”
“I've practiced some swings.”

“Have not needed to punch anyone! With all the Christmas traffic I might have wanted to though! LOL”
“Yes, been doing kick boxing”

8. If so, could you briefly tell me how the practice or use of self-defense went?

n = 8, Responses

n = 5, No response

Comments:
“Good.”
“Good.”
“Okay.”
“Okay.”
“Practiced solo. Appreciated the review of the techniques and was surprised about the word "help" not being useful.”
“Solo practice and with a partner.”
“Fine. Demonstrated to a peer.”
“Air practice and practiced with peer. Peer indicated the techniques would have been effective.”

9. Did you feel comfortable using the self-defense techniques practiced or discussed?

n = 9, Yes

n = 4, No response

Comments:
“Yes although I am small and any attacker would probably overpower me.”

10. How do you feel about the self-defense training and techniques you’ve learned?

n = 12, Responses

n = 1, No response

Comments:
“It's good.”
“I can't wait to try more of them.”

		"I just hope that I am still strong enough to manage some of the techniques." "Crime rates have increased in my area, and I am glad to have this training." "It's good." "I like it, but need to practice on something I can hit." "It's good to know although I hope I won't have to use it." "I think it has value for individuals who have no prior training in self-defense." "I would like to see myself commit these to memory to improve muscle memory. It seems empowering." "Helpful information." "I wish this could be taught face to face at senior centers." "I'm learning the best way to use it."
		11. Is there anything else you would like to share before the next session?
		n = 10, No
		n = 2, No response
		Comments: "I can't think of anything." "Looking forward to the learning." "Thanks for the videos forwarded. I hope to use the visualization ones for my power walking training!!" "Looking forward to the learning." "(Can) You teach us how to take care of yourself if we have trouble?"
Comparison group	*N* = 12	***1. Since the last session have you used or applied any of the psychoeducation safety information discussed?***
		n = 4, Yes
		n = 7, No
		n = 1, No response
		Comments: *"*Considering exit routes of location (various type)." "I have not applied however I am more aware of how to be and appear more confident. I realize how I might have

dealt with situations before this class could have escalated the situation."
"I have related what I am learning to my close friends, and are discussing some of the precaution s and techniques."
"Today, while out at Lowes, which was chock full of shoppers @ 12:15pm !!!! I made a concerted effort to remember exactly which lane I parked my car in, so as not to appear lost when I came out, and made sure I did a panoramic view of the area around my car when returning. I also kept my eyes on the movement of whoever I was passing both going into the store and coming out of the store. I did not look down or take out my phone nor did I fumble in my purse. My car has a feature that I can touch the door handle to open it as long as the key is on my person."
"More items to think about."

2. If so, what was the safety information you used?

n = 8, No response

Comments:
"I shared with my husband who owns a service business about telling the caller what they will be driving and wearing."
"Escape plan from home if broken into while on site or fire...or attending events…."
"Carry purse in front of me. Place purse in car before loading groceries. Prepared more diverse car emergency kit than I already had in car. Considering purchasing anti-theft purse."
"Just being more aware of my surroundings."

3. Did you feel comfortable using or applying the safety information?

n = 5, Yes

n = 2, No

n = 5, No response

Comments:
"It empowered me to be in charge of my safety as much as possible."

"Very much so and it really puts you at ease knowing that you have already walked through what might happen."
"I am wondering if I am more advanced than many of the others in class in use of verbal and physical techniques to manage safety. My background as a psychiatric nurse and Crisis Prevention Intervention Instructor enabled me to learn, use and teach many of the techniques you are covering. I am also quite comfortable in addressing aberrant behavior and managing aggressive patients (although mostly in a team environment). Also living in NYC I unafraid of dealing with subway gropers, aggressive/mentally ill street people, etc."

4. Since the last session did any new concerns, thoughts, or questions come up regarding your safety (i.e., personal safety, community safety, home safety, etc.)?

n = 1, Yes

n = 10, No

n = 1, No response

Comments:
"Figuring out how to balance how to self-defend without breaking my own bones due to osteoporosis (LOL)."
"The stories shared were helpful."
"Thank you for following up with videos and information resources and including NC state law."
"What is your recommendation for purchasing a stun gun or mace?"
"Pulling into a gas station when you see that there isn't anyone else pumping gas. Is there a reason for this or is it just that no one needs gas."

5. If so, what were they?

n = 9, No response

Comments:
"Driving long distances that required us to be on the road at night in strange areas."
"I thought about the upcoming biggest shopping season of the year and plan to not go shopping after dark, making

sure I prepare a list of what I need so that I can get in and get out as quickly as possible."
"Not only for the "unexpected" things that could happen as well as not being in crowds of people who are not wearing masks or social distancing."

6. How do you feel so far about the psychoeducation safety information you're receiving?

n = 12, Responses

Comments:
"This information has been very helpful. I realize that before this class I could possibly have escalated a situation."
"It is a good review and some helpful hints but don't want to monopolize the discussion with all the out of control, aggressive, etc. situations I have dealt with over the past 50 years."
"Excellent. Instructor follows through with questions asked or concerns, and is very proactive and giving us "more"."
"Encourages participation in "safe" manner."
"Great and empowered."
"This has been helpful and informative."
"Very good, have learned or revisited many areas of interest."
"It is good, valuable, useful information and I will be sure to pass on tips to family and friends."
"Feeling like I will be able to defend myself in certain situations."
"Better. Knowing that we need to be very aware of our surroundings."
"I feel very good about reminding myself that I am able to use some kind of self-defense if a situation presents itself. I have a loud voice and I am not afraid to use it to call out for help. I will not put myself in an unsafe position if at all possible."
"Good."

7. Since the last session have you used or practiced any of the self-defense techniques practiced or discussed?

n = 1, Yes

n = 11, No

Comments:
"No, I haven't been out of my house and no one has come to the door."
"I have not used or practiced them but I have thought about them."
"No need to use any techniques."
"I have practiced visualization."
"No. Did not have to, Thank God."
"No, not really. Might be a good thing that I never have to use self-defense."

8. If so, could you briefly tell me how the practice or use of self-defense went?

n = 1, Response

n = 11, No response

Comments:
"Okay, some visualization but mostly manually trying out the techniques in particular arm block, punch (without drawing back first) hammer strike with keys (also put my key on lanyard) and groin kick."

9. Did you feel comfortable using the self-defense techniques practiced or discussed?

n = 1, Yes

n = 11, No response

Comments:
"Have appreciated the self-defense techniques we have discussed, and could do a few right now comfortably (i.e., block and punch)."

10. How do you feel about the self-defense training and techniques you've learned?

n = 10, Responses

n = 2, No response

Comments:

"Look forward to learning more, might be helpful for group as we go along to do a practice run of each block/punch, etc. rather than just watching. That way we could each (you and us) feel more comfortable that we were doing technique correctly. Too bad there is not an interactive tool with our computer (?) that we could put hand on screen to appropriate body part to aim for!"
"Good"
"Very helpful."
"I feel like I could easily use many of them."
"Great."
"This has been informative and has given me things to think about and be aware of."
"Helpful. The videos, and the written illustrated print offs of techniques particularly useful. Also the sharing of personal experiences with leader and group members."
"I feel like I will be able to bring to mind the techniques we have learned if and when the situation presents itself."
"Has given me some necessary skills that will be beneficial for personal self-defense."
"Techniques will come in real handy and needed if situations present to me."

11. Is there anything else you would like to share before the next session?

n = 1, Yes

n = 7, No

n = 4, No response

Comments:
"I did stop by a drive thru restaurant on my way home and a man appeared to be coming up to my car. I just stared at him and he kept on walking. Whew!!"
"One thing Megan, could you wait until a few days after class to send this feedback? Maybe like the Friday or Saturday after class."
"Looking for to hearing from group."
"Thank you!"
"Thank you!"

APPENDIX H: SELF-DEFENSE CURRICULUM

Self-defense curriculum for the augmented psychoeducation group counseling and self-defense group. The curriculum are based on self-defense techniques derived from Isshinryu and a martial arts family style of Hakka Bak Mei Kung fu. The self-defense instructor and primary investigator is a sixth degree black sash in the style.

Week	Self-Defense Focus	Self-Defense Technique
1	Basic striking and blocking	Straight punch Hook punch Jab punch Basic blocking
2	Advanced striking and review of blocking	Palm-heel strike Knife-hand strike Claw/finger strike Review of basic blocking
3	Combination of blocks and strikes	Blocking a hook, straight, or jab punch Followed by an advanced striking technique Attack scenario practice
4	Basic elbow and knee strikes and grab defense	Elbow strike Knee strike Grab defense
5	Combination of elbow, knee, and other strikes, and review of grab defense	Elbow strike combined with strikes learned Knee strike combined with strikes learned Review of grab defense
6	Cumulative Review	Review of all the basic and advanced strikes Review of blocking technique Review of elbow and knee strike Review of grab defense Attack scenario practice

APPENDIX I: IMPLICIT SELF-DEFENSE INSTRUCTIONAL MATRIX

The following is a matrix outlining the instructional techniques used to promote implicit learning during self-defense training. The information stated below is from a study conducted by Sanders and Murray (2018), who found implicit instruction led to greater speed and accuracy in the performance of self-defense techniques.

The purpose of implicit instruction is to help promote mastery experiences by feeling the technique performed. Allowing for a participant's learning to occur without overthinking the technique's execution allows skill-building to become intuitive. Much of the implicit self-defense instruction was followed up with physical demonstration, but little to no explicit rules were provided.

Implicit self-defense instruction included:

- Cue Words
- Analogies
- Physically demonstrating techniques while using analogies and cue words
- Attack Scenarios and self-defense scenarios
- Refrained from using technical terms or specified instructions.
- Errorless learning to promote mastery experiences.

Example of analogies and cue words for each technique;

Technique:	Implicit Instruction:	Example:
Block	Cue word(s)	Arc block; Arc Fast; Fast Arc; Arc Catch-Whip Away
	Analogies	"Imagine your arm is like a strong whip or metal rod that arcs up and fast through the air, stopping anything that comes in its way." "Imagine someone is trying to reach for your shoulder/purse, and your arm arcs up and fast through the air, whipping/striking it away." "Imagine your arm is a steel rod/steel umbrella you're reaching up and out to stop to meet the punch and then wave it away. Waving like there is a crowd, someone you know behind the attacker."

Straight punch	Cue word(s)	One-Punch; One Punch Fast; L-One Punch Fast; One; Cross punch
	Analogies	"Imagine your right hand is a steel glove holding a roll of quarters." "Imagine you're crossing over with your steel, right fist to strike a large button or bullseye on the attacker's head/face/chest/etc." "Imagine you're using the steel gloved fist to reach out and pop a balloon on the attacker's head/face/chest/etc."
Hook punch	Cue word(s)	Wing Punch; Wing Fast; R-Wing Punch; 90-degrees Wing Punch; Three Punch; Three
	Analogies	"Imagine your right fist and arm are an eagle's wing striking out." "Imagine you're using the right fist to arc in a wing-like motion to strike a large button or bull's eye on the side of the attacker's head/face/ribs/etc."
Jab punch	Cue word(s)	Two Punch; Two Punch Fast; R-Two Punch Fast; Two; Overhand Punch
	Analogies	"Imagine your left hand is a steel glove holding a roll of quarters." "Imagine you're reaching over your steel left fist to strike a large button or bullseye on the attacker's head/face/chest/etc." "Imagine you're using the steel gloved fist to reach out and pop a balloon on the attacker's head/face/chest/etc."
Palm-heel strike	Cue word(s)	Palm Punch; Fast Palm; High five face;
	Analogies	"Say 'Hi' to the face."

		"Imagine your hand is like a stop sign coming towards the attacker to tell them to stop." "Imagine you're using your hand to reach out and palm away the attacker's hateful words/statements
Knife-hand strike	Cue word(s)	Sword-hand; Sword-hand chop; Fast Chop
	Analogies	"Imagine your hand is a sword that quickly cuts the attacker." "Imagine you're chopping a tree or wood, and your hand is the hatchet."
Claw or Finger strike	Cue word(s)	Leopard claw; Claw strike; Fast Claw; Claw Fast
	Analogy	"Imagine your fingers and hand are like a leopard's paw that reaches out to claw your attacker's face." "Imagine your fingers are razor-sharp claws reaching out to strike your attacker's face."
Elbow strike	Cue word(s)	Vampire cloak; Cloak Attack; Fast Vampire Cloak
	Analogies	"Imagine you're using your elbow to cloak your face like a vampire." "Imagine your elbow is coming up like a child presenting it to be kissed." "Covering the face like a vampire."
Knee strike	Cue word(s)	Crane knee; Fast Crane; Crane Leg
	Analogies	"Imagine you are a bird or crane, and you're bringing up your leg like a crane." "Imagine you are lifting and bringing the knee up to avoid stepping on something, lifting it fast and up."

Grab Defense	Cue word(s)	Rock & Roll; Rock In & Roll; Fast Rock & Roll;
	Analogies	"Imagine your arm is like a rocking horse, rocking up and then flinging away." "Imagine you're throwing a bowling ball and then turn and wave to the crowd." "Imagine you're flinging the attacker away as you wave to the crowd after breaking free from the grab."

APPENDIX J: IMPLICIT SELF-DEFENSE TRAINING TECHNIQUES

The following provides examples of implicit self-defense instructional techniques. The implicit techniques include the use of analogies, cue words, attack or self-defense scenarios, and errorless learning. The examples and information listed below are meant to guide observing implicit techniques while completing the manipulation checklist (Gabbett & Masters, 2011; Sanders, 2014; Sanders & Murray, 2018). Further detail for wording and examples have also been provided in the *Implicit Self-defense Instructional Matrix* (Appendix I).

Implicit Training Technique	**Overview of Skill**	**Example**
Analogies	• Analogies can show how two things might be similar and are the transfer of meaning from one thing to another. • Analogies are used to not only show but explain. • They are used to encourage the development of a skill or completion of a task absent of explicit, verbal instruction. • It moves beyond simply telling the learner what to do. • Encourages the learner to employee mental skills (i.e., visualization, mental imagery, concentration, attentional focus) •	The instructor may say, "Imagine your arm is a steel, strong rod arcing through the air," when demonstrating a blocking technique. Or, when physically demonstrating a strike, like a knife-hand strike, the instructor may say, "Imagine your hand is like a curved, steel blade cutting the attacker…slicing through the air."
Cue Words	• Involves the simple use of words to help the learner from being overly aware of their movements. • Cue words can direct or focus the learner's attention (i.e., attentional focus) towards a key task or skill.	For blocking technique, the instructor may use cue words like "arc block," "arc fast," or "fast arc." The instructor may say "Leopard strike" or "Claw

	• Cue words can also be used to emphasize the desired movement along with the speed, form, accuracy, and effectiveness of the movement. • The words used are short, simple, task-oriented, and can be used to promote external and internal cues.	Fast" when practicing a Claw or finger strike. Or, when demonstrating a strike with one's elbow, the instructor may call out "Vampire Cloak" or "Fast Vampire Cloak."
Attack or Self-defense Scenarios	• Attack or self-defense scenarios describe situations, steps, or ways an attacker tries to exploit a person's vulnerability. • Attack scenarios in self-defense training allow learners to safely imagine a situation where they must defend themselves or use their self-defense techniques. • Are controlled scenarios used to promote the practice of self-defense techniques skills. • It describes a situation where the learners must imagine defending themselves against an unsafe or violent situation. • Provides context to self-defense situations that cannot be provided explicitly. • A simulated attack (i.e., self-defense scenario used) to safely allow the learner to think about how they would defend themselves cognitively. Additionally, to emotionally process any feelings that arise and	A self-defense scenario used by the instructor may have participants imagine the following: "Let's imagine you're in your car after grocery shopping. As you place the groceries in the car, someone approaches you, asking for money. You're politely but firmly addressing them when they throw a sucker punch. You respond with a fast arc block and fast hook strike." The instructor would then have participants practice blocking the imaginary punch and following up with a strike. When processing the scenario, the instructor may also ask, 'What other ways the participant could have maintained their personal safety?' Another attack or self-defense scenario may have participants imagine the following: "It's nighttime, and

	physically apply various self-defense techniques to the proposed situation to determine success in performance.	a neighbor is knocking at your door. You let them think they need help, but instead, they reach out to you, demanding money. You arc block and follow with a vampire cloak (elbow) strike." The instructor would then have the participant practice self-defense combo while later processing 'what else the participant could have done or done differently to maintain personal safety?'
Errorless learning	• The instructor designs and uses errorless learning drills or practice sessions to promote implicit learning. • Errorless practice drills improve performance by helping the learner not overthink their performance. • Errorless practice drills involve practice without errors and allow the learner to learn and perform intuitively, unconsciously, and with greater confidence.	Examples include; • Practice drills that gradually evolve from simple to more complex. • Drills with little variability in movement. • Drills that encourage the learner to 'feel' the movements being learned. • Drills encourage the learner to engage in on-the-spot movement solutions. • Drills that discourage overthinking and acting intuitively. • The instructor refrains from using explicit rules or instruction.

APPENDIX K: SELF-DEFENSE PROFICIENCY SKILLS TEST (SDPST)

Evaluating the progress of a person learning self-defense techniques is crucial to self-defense training. The following proficiency test rates the participant's ability to perform the self-defense techniques outlined below regarding speed, accuracy, and effectiveness. Each of the identified parameters of the test: speed (e.g., the technique was performed within 19-seconds or less), accuracy (e.g., striking or blocking the intended target with precision), and effectiveness (e.g., the technique was effective in executing the skills or ending the attack), were rated on a 5-point Likert scale; from **Unmet** to **Very met.**

0	**1**	**2**	**3**	**4**
Unmet		**Moderately met**		**Very met**

Self-Defense Technique:	**Speed**	**Accuracy**	**Effectiveness**	**Average Score**
1. Basic Blocking				
2. Basic Straight punch				
3. Basic Hook punch				
4. Basic Jab punch				
5. Advanced Palm-heel strike				
6. Advanced Knife-hand strike				
7. Advanced Claw/Gauging strike				

8. Elbow strike				
9. Knee strike				
10. Grab defense				
11. Combo of basic blocks and strikes				
12. Combo of advanced blocks and strikes				

APPENDIX L: FEAR OF CRIME SCALE (FCS)

At one time or another, most of us have experienced fear about becoming the victim of crime. Some crimes probably frighten you more than others. We are interested in how afraid people are in everyday life of being a victim of different kinds of crimes. Please rate your fear on a scale of 1 to 10, where **1** means you are **NOT AFRAID AT ALL** and **10** means you are **VERY AFRAID.**

0	1	2	3	4	5	6	7	8	9	10
Not Likely At All										**Very Likely**

HOW AFRAID ARE YOU OF...	**(1 - 10)**
1. Being approached on the street by a beggar or panhandler?	_____
2. Being cheated, conned, or swindled out of your money?	_____
3. Having someone break into your home while you are away?	_____
4. Having someone break into your home while you are there?	_____
5. Being raped or sexually assaulted?	_____
6. Being murdered?	_____
7. Being attacked by someone with a weapon?	_____
8. Having your car stolen?	_____
9. Being robbed or mugged on the street?	_____
10. Having your property damaged by vandals?	_____

APPENDIX M: PERCEIVED RISK OF CRIME SCALE (PRCS)

You have already rated your fear of different kinds of crimes. Now I want you to rate **THE CHANCE THAT A SPECIFIC THING WILL HAPPEN TO YOU DURING THE COMING YEAR**. On a scale of 1 to 10, where **1** means it's **NOT AT ALL LIKELY** and **10** means it's **VERY LIKELY**.

0	1	2	3	4	5	6	7	8	9	10
Not Likely At All										**Very Likely**

HOW LIKELY DO YOU THINK IT IS THAT YOU WILL...	**(1 - 10)**
1. Be approached on the street by a beggar or panhandler?	_____
2. Be cheated, conned, or swindled out of your money?	_____
3. Have someone break into your home while you are away?	_____
4. Have someone break into your home while you are there?	_____
5. Be raped or sexually assaulted?	_____
6. Be murdered?	_____
7. Be attacked by someone with a weapon?	_____
8. Have your car stolen?	_____
9. Be robbed or mugged on the street?	_____
10. Have your property damaged by vandals?	_____

APPENDIX N: PERCEIVED SELF-EFFICACY SCALE (PSES)

The following is a multidimensional, perceived self-efficacy scale by Ozer and Bandura (1990), measuring activities, interpersonal, and self-defense self-efficacy.

Activities Self-Efficacy

1. Described below are a variety of activities that people might engage in. Please rate, on a scale of 1 – 10 how many of these activities you actually do, right now, on your own.

0 1 2 3 4 5 6 7 8 9 10

Don't Do Many **Do Some** **Do Many**

1a. _____ Outdoor exercise (jogging, biking, walking)

1b. _____ Outdoor Recreational Activities (hiking, camping, beach)

1c. _____ Travel to different neighborhoods in your city

1d. _____ Travel to neighboring towns or cities

1e. _____ Travel to distant cities

1f. _____ Use Public Transportation

1g. _____ Attend Evening events (movies, lectures, plays, musical performances)

1h. _____ Dating

1i. _____ Work activities outside the usual hours (working late or on weekends)

1j. _____ Attend social activities (parties, receptions)

2. How many of these activities, that you would like to do, do you avoid, when you are alone, because of concern over personal safety.

0	1	2	3	4	5	6	7	8	9	10
Avoid None					**Avoid Some**					**Avoid Many**

2a._____Outdoor exercise (jogging, biking, walking)

2b._____Outdoor Recreational Activities (hiking, camping, beach)

2c._____Travel to different neighborhoods in your city

2d._____Travel to neighboring towns or cities

2e._____Travel to distant cities

2f._____Use Public Transportation

2g._____Attend Evening events (movies, lectures, plays, musical performances)

2h._____Dating

2i._____Work activities outside the usual hours (working late at or on weekends)

2j._____Attend social activities (parties, receptions)

3. You arrive home after work and, before going in, sense that something is not right. How confident are you that you can as of now:

3a._____Go over to a neighbor's house

3b._____Call the police.

Please use the following scale for questions 12 and 13.

0	1	2	3	4	5	6	7	8	9	10
Cannot Do At All					**Moderately Certain Can Do**					**Certain Can Do**

4. How confident are you that you can, as of now jog in the park:

	With a female (or male) <u>friend</u>:	**<u>Alone</u>:**
During the day:	4a. _____	4b. _____
At dusk:	4c. _____	4d. _____
In the evening:	4e. _____	4f. _____

5. How confident are you that you can, as of now:

5a. _____ Drive alone to an evening lecture or performance in an unfamiliar area

5b. _____ Drive alone to an evening lecture where you will have trouble finding a parking place.

5c. _____ Go to an evening lecture by bus

5d. _____ Bike alone to a day lecture in an unfamiliar area

5e. _____ Ride your bike alone to an evening lecture

Please use the following scale for question 14.

0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
<u>Cannot Do At All</u>				**<u>Moderately Certain Can Do</u>**						**<u>Certain Can Do</u>**

6. How confident are you that you can, as of now:

6a. _____ Go to the beach by yourself

6b. _____ Go hiking by yourself

6c. _____ Go camping with a female friend

6d. _____ Go camping by yourself

6e. _____ Go to a restaurant by yourself at night

6f. _____ Go to an unfamiliar party by yourself at night

6g. _____ Go to a movie by yourself at night

6h. _____ Go to a bar by yourself

6i. _____ Go to a nightclub (e.g., jazz) by yourself

6j. _____ Go to a night rock concert by yourself

Interpersonal Self-Efficacy

Please use the following scale for questions 7 through 9.

0	1	2	3	4	5	6	7	8	9	10
Cannot Do At All					**Moderately Certain Can Do**					**Certain Can Do**

7. You are walking through a deserted neighborhood looking for a friend's apartment. You get the feeling that a man about half a block back may be following you. How confident are you that you can, as of now:

7a._____Walk faster

7b._____Cross the street

7c._____Run

7d._____Walk like you know where you are going

7e._____Walk up to another house or apartment and ask for help

7f._____Attract a crowd by yelling

0	1	2	3	4	5	6	7	8	9	10
Cannot Do At All					**Moderately Certain Can Do**					**Certain Can Do**

8. You are alone in the elevator going down to the basement to buy a drink from the machine. A man gets on the elevator. He looks at you in a way that makes you feel a little uncomfortable. How comfortable are you that you can, as of now:

8a._____Press another button and get off the elevator.

9. A man comes to your house to read your gas-meter. You don't want him to come into your house because you feel uncomfortable about him (even if he showed ID). How comfortable are you that you can, as of now:

9a._____Tell him that you do now want him to come in.

Please use the following scale for questions 10 and 11.

0	1	2	3	4	5	6	7	8	9	10
Cannot Do At All				**Moderately Certain Can Do**						**Certain Can Do**

10. You are waiting for the bus at a bus stop. There is no one standing next to you but there are other people fairly close by. A man walks up to the stop and starts verbally hassling you. He comes up close but has not touched you.

How confident are you that you can, as of now:

10a. _____ Stay silent and act as if you are ignoring him

10b. _____ Maintain your spot

10c. _____ State firmly that you do not want to talk to him

10d. _____ Stay put AND tell him that you do not want to talk to him.

10e. _____ Tell him off

10f. _____ Walk over to other people and ask for help

10g. _____ Call for help

11. You are standing on a crowded bus when the man standing next to you puts his hand on your buttocks and leans his body into yours.

How confident are you that you can, as of now:

11a. _____ Complain to the driver

11b. _____ Ask him to remove his hand

11c. _____ Speak loudly to let other passengers know what is going on

11d. _____ Make a loud scene so that most everybody on the bus knows what this man has done to you

Please use the following scale for questions 12 through 14.

0	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**
Cannot Do At All				**Moderately Certain Can Do**						**Certain Can Do**

12. You have stayed late at work for an office party and are now ready to go home. Your car is parked in a lot about a block away. Since it is dark and the streets are not as busy as they are when you usually leave the office, you are feeling uneasy about walking to your car.

How confident are you that you can, as of now:

12a. _____ Walk to your car alone with your car-key ready and lookout for people who look suspicious

12b. _____ Ask someone who is also leaving the party to walk with you to your car

12c. _____ Ask someone at the party to walk you to your car

13. You meet a man at a party and are very interested in getting to know him better. At midnight he asks you to go with him, in his car, to a bar. You feel a little wary because you have just met him.

How confident are you that you can, as of now:

13a. _____ Go to the bar but take separate cars

13b. _____ Suggest that some of your other friends at the party come along

13c. _____ Suggest another time to get together

14. In a dating situation,

How confident are you that you can, as of now:

14a. _____ Tell a man that you would like him to come into your house but not spend the night.

14b. _____ Tell a date that you have invited into your house that you are ready for him to leave

14c. _____ Refuse to kiss your date good-night

Self-Defense Self-Efficacy

Please use the following scale for question 15.

0	1	2	3	4	5	6	7	8	9	10
Cannot Do At All				**Moderately Certain Can Do**						**Certain Can Do**

15. You are walking on a public street when a man grabs you from behind. At the moment that this happens you do not see any other people close by.

How confident are you that you can, as of now:

15a. _____ Scream loudly more than once

15b. _____ Struggle physically in any way

15c. _____ Stomp to the instep of the foot to cause pain

15d. _____ Use your elbow to forcefully strike him

15e. _____ Pull his finger back and release his arms

15f. _____ Come back quickly with another strike if one was not effective

15g. _____ Get out of his hold in some way

15h. _____ Get out of his hold and run away

15i. _____ Disable the assailant so that he can not run after you

15j. _____ Getaway if he had blind-folded you as he grabbed you

Please use the following scale for question 16.

0	1	2	3	4	5	6	7	8	9	10

Cannot Do At All	Moderately Certain Can Do	Certain Can Do

16. You are grabbed from the front or somehow end up facing your assailant.

How confident are you that you can, as of now:

16a. _____Scream or yell loudly more than once

16b. _____Struggle physically in some way

16c. _____Stomp to the instep of the foot to cause pain

16d. _____Forcefully hit him using the heel of your palm

16e. _____Knee him forcefully in the groin

16f. _____Kick low to the unstable parts of his body (e.g., knee) and throw him off balance

16g. _____Forcefully strike him in the throat

16h. _____Forcefully strike him in the eye

16i. _____Come back quickly from one strike and use another

16j. _____Cover yourself from being hit

16k. _____Get out of his hold and run away

16l. _____Continue striking your assailant until he is disabled

Please use the following scale for question 17.

0	1	2	3	4	5	6	7	8	9	10

Cannot Do At All	Moderately Certain Can Do	Certain Can Do

17. You are grabbed from behind and the assailant pulls you down onto the ground

How confident are you that you can, as of now:

17a. _____ Scream or yell loudly more than once

17b. _____ Struggle physically in some way

17c. _____ Stay in a ball for safety when you are knocked down

17d. _____ While in a ball, roll and forcefully bite his arm or hand

17e. _____ Use your advantage or opening from the bite to strike the throat or some other area with your elbow

17f. _____ After striking with your elbow, turn your body and strike to his eyes

17g. _____ Turn body and forcefully use a side-thrust kick

17h. _____ Jump up and out of reach of your assailant

17i. _____ Run away

17j. _____ Disable your assailant

Please use the following scale for question 18.

0	1	2	3	4	5	6	7	8	9	10
Cannot Do At All				**Moderately Certain Can Do**						**Certain Can Do**

18. The assailant has you lying on your back with him on top of you

How confident are you that you can, as of now:

18a. _____ Scream loudly more than once

18b. _____ Struggle physically in some way

18c. _____ Use your hip to his groin area if he is not completely down and then do a quick shift of your weight to unseat him

18d. _____ If your legs are not completely pinned, push the man off with your legs

18e. _____ If your arms are not completely pinned, use fingers to forcefully strike eyes

18f. _____ Hook your legs over his shoulders if he is lying up near your chest. Then make a quick move with your legs and get on your side.

18g. _____ Use your heel to kick down forcefully on your assailant

18h. _____ Through whatever means, get unpinned

18i. _____ Run away

18j. _____ Disable your assailant

Please use the following scale for questions 19 through 22.

0	1	2	3	4	5	6	7	8	9	10
Cannot Do At All				**Moderately Certain Can Do**						**Certain Can Do**

19. You have been surprised in your bed, and the assailant has you pinned on your front

How confident are you that you can, as of now:

19a. _____ Scream or yell loudly more than once

19b. _____ Roll him off

19c. _____ If his hands are around your hips or shoulder, lunch forward quickly. Then get on your side for a kick.

19d. _____ Get away

19e. _____ Disable your assailant

	20. If you are grabbed and remain standing	21. If you are pulled to the ground	22. If you are pinned on the ground
Find openings where you can strike	20a. _____	21a. _____	22a. _____
Strike quickly and powerfully	20b. _____	21b. _____	22b. _____
Disable assailant	20c. _____	21c. _____	22c. _____
Knock out assailant	20d. _____	21d. _____	22d. _____

Please use the following scale for questions 23 through 25

0	1	2	3	4	5	6	7	8	9	10
Cannot				**Moderately**						**Certain**

Do At All **Certain Can Do** **Can Do**

23. If you are attacked in a closed space (bedroom, car)

How confident are you that you can, as of now:

23a. _____ Getaway

23b. _____ Disable assailant

23c. _____ Knock out assailant

24. If you are attacked in an open space (street, park)

How confident are you that you can, as of now:

24a. _____ Getaway

24b. _____ Disable assailant

24c. _____ Knock out assailant

25. If a stranger attacks you

How confident are you that you can, as of now:

25a. _____Yell loudly more than once

25b. _____ Struggle in some physical way

25c. _____ Physically fight back to getaway

25d. _____ Disable assailant

25e. _____ Knock out assailant

Please use the following scale for question 26.

0 1 2 3 4 5 6 7 8 9 10

Cannot Do At All **Moderately Certain Can Do** **Certain Can Do**

26. If an acquaintance attacks you (casual dating or friend):

How confident are you that you can, as of now:

26a. _____Yell loudly more than once

26b. _____ Struggle in some physical way

26c. _____ Physically fight back to getaway

26d. _____ Disable assailant

26e. _____ Knock out assailant

APPENDIX O: DEMOGRAPHIC QUESTIONNAIRE

Please complete the following information about yourself.

1. Gender (Circle one) Female Male Other:_____

2. Date of Birth: _____

   Example: 05/07/1966

3. Race (Circle all that apply)

   - American Indian
   - Asian
   - Black/African American
   - Latino/a
   - Native Hawaiian or Other Pacific Islander
   - Caucasian
   - Other: _____

4. Current Marital Status (Circle one)

   - Married
   - Widowed
   - Divorced
   - Separated
   - Never married

5. Education (Circle highest level attained)

   - Less than 7th grade
   - 9th grade (Junior High)
   - Partial High School
   - High School Graduate
   - 1-3 years of College
   - Community College/Trade School Graduate
   - College/University Graduate
   - Master's Degree
   - PhD/MD/or Equivalent
   - Other:_____

6. Retired (Circle one) Yes No

7. If retired, please provide your last occupation:_____

8. Number of years in previous occupation:_____

9. Currently Working (Circle one) Yes No

10. If still working, please provide your present occupation (if retired, last occupation):

_____

11. If working, what are the hours (Circle one):

- Full-time
- Part-time
- As scheduled
- Volunteer basis

12. Years in present (if retired, previous) occupation: _____ years

Now, I would like to ask you some questions that could be sensitive in nature. Take your time in answering them, and do so only if you feel comfortable sharing this information. Please know that all information shared will be kept confidential and only shared with the primary investigator and research committee.

13. Have you ever been a survivor of a violent crime? Meaning have you ever been a survivor of physical assault, sexual assault, domestic violence assault, or rape (Circle One):

- Yes
- No
- Wish not to answer.

14. If you answered 'Yes,' what type of violent crime (Circle all that apply):

- Physical Assault
- Sexual Assault
- Domestic Violence Assault

- Rape
- Other: _____
- Wish not to answer.

9. Have you ever been a survivor of a non-violent crime? Meaning have you ever been a survivor of burglary, theft, property crime, etc. (Circle One):

- Yes
- No
- Wish not to answer.

10. If you answered 'Yes,' what type of non-violent crime (Circle all that apply):

- Robbery (i.e., pickpocketing, purse snatching, etc.)
- General burglary
- Household burglary
- Auto theft
- Vandalism (i.e., property vandalism, auto vandalism, etc.)
- Other: _____
- Wish not to answer.

9. Do you have any previous experience of engaging in counseling or therapy? (Circle One)

- Yes
- No
- Wish not to answer.

10. If you answered 'Yes,' what type of counseling or therapy (Circle all that apply):

- Individual
- Group
- Other: _____
- Wish not to answer.

11. If so, how long did you receive counseling or therapy (Circle One)?

- Less than 6 weeks
- 6 weeks
- 1 – 3 Months
- 6 – 12 Months
- 1 – 3 Years
- More than 5 Years
- Other: _____

12. Do you have any previous experience with taking a self-defense training course? (Circle One)

- Yes
- No
- Wish not to answer.

13. If you answered 'Yes,' what type of self-defense training (Circle all that apply):

- Martial Arts
- Kickboxing class
- Mixed Martial Arts
- Military: Hand to Hand Combat
- Basic Self-defense Class
- Reality-based Self-defense Program

- Other: _____

14. If so, how long did you train or participate in the program (Circle One)?

- Less than 6 weeks
- 6 weeks
- 1 – 3 Months
- 6 – 12 Months
- 1 – 3 Years
- More than 5 Years

- Other: _____

15. Do you feel comfortable discussing and processing various safety topics, such as personal safety, home safety, community safety, etc.? (Circle One)

- Yes
- No
- Wish not to answer.

16. Do you feel comfortable discussing and processing potentially threatening or unsafe situations involving crime, both violent and non-violent? (Circle One)

- Yes
- No
- Wish not to answer.

17. Do you have access to the following technology on a consistent basis in order to fully participate in the program? (Circle All that Apply)

- Reliable Wi-Fi
- Computer with a microphone and video conferencing abilities
- Laptop with a microphone and video conferencing abilities
- iPad/Tablet with a microphone and video conferencing abilities
- Smartphone with a microphone and video conferencing abilities
- Access to reliable email
- Wish not to answer.

18. Do you feel comfortable accessing and using technology (i.e., computer, laptop, iPad, tablet, smartphone, etc.) to participate in the study? (Circle One)

- Yes
- No
- Wish not to answer.

APPENDIX P: PHYSICAL ACTIVITY READINESS QUESTIONNAIRE (PAR-Q+)

The *Physical Activity Readiness Questionnaire for Everyone* (PAR-Q+) is a brief, self-report questionnaire to assess an individual's readiness to engage in a new exercise plan or physical activity. However, most individuals can engage in physical activity safely. The questionnaire consists of two sets of questions. The first set of questions evaluates the individual's physical health and current medical conditions. The second set of questions is a general and medical questionnaire used to assess current physical activity level, potential physical inabilities, and additional medical concerns.

The PAR-Q+ is a useful screening tool that can inform you on whether or not it is necessary to seek advice from a medical professional or exercise professional before seeking out or becoming more physically active. To engage in the current study, participants will be required to pass the PAR-Q+. If a participant should not readily pass the PAR-Q+, by answering 'yes' to at least one of the questions below, they should consult with their physician before engaging in the study. Please complete both parts of this questionnaire in preparation for engaging in the study.

I. PHYSICAL ACTIVITY READINESS QUESTIONNAIRE FOR EVERYONE (PAR-Q+):

Directions for completing the PAR-Q+: Please answer all the following questions. If you have answered "Yes" to one or more of the questions below, please consult with your physician before engaging in physical activity. Tell your physician which questions you answered "Yes" to. After a medical evaluation, seek advice from your physician on what type of activity is suitable for your current condition.

2021 PAR-Q+

The Physical Activity Readiness Questionnaire for Everyone

The health benefits of regular physical activity are clear; more people should engage in physical activity every day of the week. Participating in physical activity is very safe for MOST people. This questionnaire will tell you whether it is necessary for you to seek further advice from your doctor OR a qualified exercise professional before becoming more physically active.

GENERAL HEALTH QUESTIONS

Please read the 7 questions below carefully and answer each one honestly: check YES or NO.	**YES**	**NO**
1) Has your doctor ever said that you have a heart condition ☐ **OR** high blood pressure ☐?	☐	☐
2) Do you feel pain in your chest at rest, during your daily activities of living, **OR** when you do physical activity?	☐	☐
3) Do you lose balance because of dizziness **OR** have you lost consciousness in the last 12 months? Please answer **NO** if your dizziness was associated with over-breathing (including during vigorous exercise).	☐	☐
4) Have you ever been diagnosed with another chronic medical condition (other than heart disease or high blood pressure)? **PLEASE LIST CONDITION(S) HERE:** _____	☐	☐
5) Are you currently taking prescribed medications for a chronic medical condition? **PLEASE LIST CONDITION(S) AND MEDICATIONS HERE:** _____	☐	☐
6) Do you currently have (or have had within the past 12 months) a bone, joint, or soft tissue (muscle, ligament, or tendon) problem that could be made worse by becoming more physically active? Please answer **NO** if you had a problem in the past, but it **does not limit your current ability** to be physically active. **PLEASE LIST CONDITION(S) HERE:** _____	☐	☐
7) Has your doctor ever said that you should only do medically supervised physical activity?	☐	☐

☑ **If you answered NO to all of the questions above, you are cleared for physical activity.**
Please sign the PARTICIPANT DECLARATION. You do not need to complete Pages 2 and 3.

- Start becoming much more physically active – start slowly and build up gradually.
- Follow Global Physical Activity Guidelines for your age (https://www.who.int/publications/i/item/9789240015128).
- You may take part in a health and fitness appraisal.
- If you are over the age of 45 yr and NOT accustomed to regular vigorous to maximal effort exercise, consult a qualified exercise professional before engaging in this intensity of exercise.
- If you have any further questions, contact a qualified exercise professional.

PARTICIPANT DECLARATION

If you are less than the legal age required for consent or require the assent of a care provider, your parent, guardian or care provider must also sign this form.

I, the undersigned, have read, understood to my full satisfaction and completed this questionnaire. I acknowledge that this physical activity clearance is valid for a maximum of 12 months from the date it is completed and becomes invalid if my condition changes. I also acknowledge that the community/fitness center may retain a copy of this form for its records. In these instances, it will maintain the confidentiality of the same, complying with applicable law.

NAME _____ DATE _____

SIGNATURE _____ WITNESS _____

SIGNATURE OF PARENT/GUARDIAN/CARE PROVIDER _____

If you answered YES to one or more of the questions above, COMPLETE PAGES 2 AND 3.

Delay becoming more active if:

- You have a temporary illness such as a cold or fever; it is best to wait until you feel better.
- You are pregnant - talk to your health care practitioner, your physician, a qualified exercise professional, and/or complete the ePARmed-X+ at www.epafmedx.com before becoming more physically active.
- Your health changes - answer the questions on Pages 2 and 3 of this document and/or talk to your doctor or a qualified exercise professional before continuing with any physical activity program.

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FOLLOW-UP QUESTIONS ABOUT YOUR MEDICAL CONDITION(S)

1. Do you have Arthritis, Osteoporosis, or Back Problems?

If the above condition(s) is/are present, answer questions 1a-1c — If **NO** ☐ go to question 2

1a.	Do you have difficulty controlling your condition with medications or other physician-prescribed therapies? (Answer **NO** if you are not currently taking medications or other treatments)	YES ☐ NO ☐
1b.	Do you have joint problems causing pain, a recent fracture or fracture caused by osteoporosis or cancer, displaced vertebra (e.g., spondylolisthesis), and/or spondylolysis/pars defect (a crack in the bony ring on the back of the spinal column)?	YES ☐ NO ☐
1c.	Have you had steroid injections or taken steroid tablets regularly for more than 3 months?	YES ☐ NO ☐

2. Do you currently have Cancer of any kind?

If the above condition(s) is/are present, answer questions 2a-2b — If **NO** ☐ go to question 3

2a.	Does your cancer diagnosis include any of the following types: lung/bronchogenic, multiple myeloma (cancer of plasma cells), head, and/or neck?	YES ☐ NO ☐
2b.	Are you currently receiving cancer therapy (such as chemotheraphy or radiotherapy)?	YES ☐ NO ☐

3. Do you have a Heart or Cardiovascular Condition? This includes Coronary Artery Disease, Heart Failure, Diagnosed Abnormality of Heart Rhythm

If the above condition(s) is/are present, answer questions 3a-3d — If **NO** ☐ go to question 4

3a.	Do you have difficulty controlling your condition with medications or other physician-prescribed therapies? (Answer **NO** if you are not currently taking medications or other treatments)	YES ☐ NO ☐
3b.	Do you have an irregular heart beat that requires medical management? (e.g., atrial fibrillation, premature ventricular contraction)	YES ☐ NO ☐
3c.	Do you have chronic heart failure?	YES ☐ NO ☐
3d.	Do you have diagnosed coronary artery (cardiovascular) disease and have not participated in regular physical activity in the last 2 months?	YES ☐ NO ☐

4. Do you currently have High Blood Pressure?

If the above condition(s) is/are present, answer questions 4a-4b — If **NO** ☐ go to question 5

4a.	Do you have difficulty controlling your condition with medications or other physician-prescribed therapies? (Answer **NO** if you are not currently taking medications or other treatments)	YES ☐ NO ☐
4b.	Do you have a resting blood pressure equal to or greater than 160/90 mmHg with or without medication? (Answer **YES** if you do not know your resting blood pressure)	YES ☐ NO ☐

5. Do you have any Metabolic Conditions? This includes Type 1 Diabetes, Type 2 Diabetes, Pre-Diabetes

If the above condition(s) is/are present, answer questions 5a-5e — If **NO** ☐ go to question 6

5a.	Do you often have difficulty controlling your blood sugar levels with foods, medications, or other physician-prescribed therapies?	YES ☐ NO ☐
5b.	Do you often suffer from signs and symptoms of low blood sugar (hypoglycemia) following exercise and/or during activities of daily living? Signs of hypoglycemia may include shakiness, nervousness, unusual irritability, abnormal sweating, dizziness or light-headedness, mental confusion, difficulty speaking, weakness, or sleepiness.	YES ☐ NO ☐
5c.	Do you have any signs or symptoms of diabetes complications such as heart or vascular disease and/or complications affecting your eyes, kidneys, **OR** the sensation in your toes and feet?	YES ☐ NO ☐
5d.	Do you have other metabolic conditions (such as current pregnancy-related diabetes, chronic kidney disease, or liver problems)?	YES ☐ NO ☐
5e.	Are you planning to engage in what for you is unusually high (or vigorous) intensity exercise in the near future?	YES ☐ NO ☐

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6. **Do you have any Mental Health Problems or Learning Difficulties?** This includes Alzheimer's, Dementia, Depression, Anxiety Disorder, Eating Disorder, Psychotic Disorder, Intellectual Disability, Down Syndrome

If the above condition(s) is/are present, answer questions 6a-6b If **NO** ☐ go to question 7

6a.	Do you have difficulty controlling your condition with medications or other physician-prescribed therapies? (Answer **NO** if you are not currently taking medications or other treatments)	YES ☐ NO ☐
6b.	Do you have Down Syndrome **AND** back problems affecting nerves or muscles?	YES ☐ NO ☐

7. **Do you have a Respiratory Disease?** *This includes Chronic Obstructive Pulmonary Disease, Asthma, Pulmonary High Blood Pressure*

If the above condition(s) is/are present, answer questions 7a-7d If **NO** ☐ go to question 8

7a.	Do you have difficulty controlling your condition with medications or other physician-prescribed therapies? (Answer **NO** if you are not currently taking medications or other treatments)	YES ☐ NO ☐
7b.	Has your doctor ever said your blood oxygen level is low at rest or during exercise and/or that you require supplemental oxygen therapy?	YES ☐ NO ☐
7c.	If asthmatic, do you currently have symptoms of chest tightness, wheezing, laboured breathing, consistent cough (more than 2 days/week), or have you used your rescue medication more than twice in the last week?	YES ☐ NO ☐
7d.	Has your doctor ever said you have high blood pressure in the blood vessels of your lungs?	YES ☐ NO ☐

8. **Do you have a Spinal Cord Injury?** *This includes Tetraplegia and Paraplegia*

If the above condition(s) is/are present, answer questions 8a-8c If **NO** ☐ go to question 9

8a.	Do you have difficulty controlling your condition with medications or other physician-prescribed therapies? (Answer **NO** if you are not currently taking medications or other treatments)	YES ☐ NO ☐
8b.	Do you commonly exhibit low resting blood pressure significant enough to cause dizziness, light-headedness, and/or fainting?	YES ☐ NO ☐
8c.	Has your physician indicated that you exhibit sudden bouts of high blood pressure (known as Autonomic Dysreflexia)?	YES ☐ NO ☐

9. **Have you had a Stroke?** *This includes Transient Ischemic Attack (TIA) or Cerebrovascular Event*

If the above condition(s) is/are present, answer questions 9a-9c If **NO** ☐ go to question 10

9a.	Do you have difficulty controlling your condition with medications or other physician-prescribed therapies? (Answer **NO** if you are not currently taking medications or other treatments)	YES ☐ NO ☐
9b.	Do you have any impairment in walking or mobility?	YES ☐ NO ☐
9c.	Have you experienced a stroke or impairment in nerves or muscles in the past 6 months?	YES ☐ NO ☐

10. **Do you have any other medical condition not listed above or do you have two or more medical conditions?**

If you have other medical conditions, answer questions 10a-10c If **NO** ☐ read the Page 4 recommendations

10a.	Have you experienced a blackout, fainted, or lost consciousness as a result of a head injury within the last 12 months **OR** have you had a diagnosed concussion within the last 12 months?	YES ☐ NO ☐
10b.	Do you have a medical condition that is not listed (such as epilepsy, neurological conditions, kidney problems)?	YES ☐ NO ☐
10c.	Do you currently live with two or more medical conditions?	YES ☐ NO ☐

PLEASE LIST YOUR MEDICAL CONDITION(S) AND ANY RELATED MEDICATIONS HERE: _____

_____

GO to Page 4 for recommendations about your current medical condition(s) and sign the PARTICIPANT DECLARATION.

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If you answered NO to all of the FOLLOW-UP questions (pgs. 2-3) about your medical condition, you are ready to become more physically active - sign the PARTICIPANT DECLARATION below:

- It is advised that you consult a qualified exercise professional to help you develop a safe and effective physical activity plan to meet your health needs.
- You are encouraged to start slowly and build up gradually - 20 to 60 minutes of low to moderate intensity exercise, 3-5 days per week including aerobic and muscle strengthening exercises.
- As you progress, you should aim to accumulate 150 minutes or more of moderate intensity physical activity per week.
- If you are over the age of 45 yr and **NOT** accustomed to regular vigorous to maximal effort exercise, consult a qualified exercise professional before engaging in this intensity of exercise.

If you answered **YES** to **one or more of the follow-up questions** about your medical condition:

You should seek further information before becoming more physically active or engaging in a fitness appraisal. You should complete the specially designed online screening and exercise recommendations program - the **ePARmed-X+ at www.eparmedx.com** and/or visit a qualified exercise professional to work through the ePARmed-X+ and for further information.

Delay becoming more active if:

- You have a temporary illness such as a cold or fever; it is best to wait until you feel better.
- You are pregnant - talk to your health care practitioner, your physician, a qualified exercise professional, and/or complete the ePARmed-X+ **at www.eparmedx.com** before becoming more physically active.
- Your health changes - talk to your doctor or qualified exercise professional before continuing with any physical activity program.

- You are encouraged to photocopy the PAR-Q+. You must use the entire questionnaire and NO changes are permitted.
- The authors, the PAR-Q+ Collaboration, partner organizations, and their agents assume no liability for persons who undertake physical activity and/or make use of the PAR-Q+ or ePARmed-X+. If in doubt after completing the questionnaire, consult your doctor prior to physical activity.

PARTICIPANT DECLARATION

- All persons who have completed the PAR-Q+ please read and sign the declaration below.
- If you are less than the legal age required for consent or require the assent of a care provider, your parent, guardian or care provider must also sign this form.

I, the undersigned, have read, understood to my full satisfaction and completed this questionnaire. I acknowledge that this physical activity clearance is valid for a maximum of 12 months from the date it is completed and becomes invalid if my condition changes. I also acknowledge that the community/fitness center may retain a copy of this form for records. In these instances, it will maintain the confidentiality of the same, complying with applicable law.

NAME _____ DATE _____

SIGNATURE _____ WITNESS _____

SIGNATURE OF PARENT/GUARDIAN/CARE PROVIDER _____

For more information, please contact

www.eparmedx.com
Email: eparmedx@gmail.com

Citation for PAR-Q+
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The PAR-Q+ was created using the evidence-based AGREE process (1) by the PAR-Q+ Collaboration chaired by Dr. Darren E. R. Warburton with Dr. Norman Gledhill, Dr. Veronica Jamnik, and Dr. Donald C. McKenzie (2). Production of this document has been made possible through financial contributions from the Public Health Agency of Canada and the BC Ministry of Health Services. The views expressed herein do not necessarily represent the views of the Public Health Agency of Canada or the BC Ministry of Health Services.

Key References

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APPENDIX Q: SATISFACTION & TECHNOLOGY QUESTIONNAIRE (S&TQ)

Satisfaction & Technology Questionnaire (S&TQ)

Date of Interview: _____

Participant ID# _____

Directions for completing the questionnaire: Please rate the following questions on a scale of 0 = Not at all to 4 = Quite a lot, or provide a written response.

1. How did you like engaging in the study online? (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

2. How did you like participating in the psychoeducation safety group sessions online? (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

3. Do you feel the online approach was effective in providing safety information? (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

4. How did you like learning about self-defense techniques and training online? (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

5. Do you feel the online approach was effective in providing you with self-defense information? (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

6. Did you find meeting online using Cisco WebEx easy? (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

7. Do you feel like you'll apply what you learned? (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

8. If so, what aspects of the information will you use after the study? (Please state briefly)

9. Since engaging in the study has your use of technology increased? (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

10. If so, what type of technology have you used more of? (Please check all that apply)

    a.) Cell Phone: iPhone/Smart Phone (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

    b.) Tablet/iPad (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

c.) Computer/Laptop (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

d.) Websites/searching online (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

e.) Text Messaging (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

f.) Email (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

g.) Other (please state): _____

11. Has the study changed your views about the following?

a.) How to deal with an unsafe situations? (Circle One)

Not at all	Somewhat	A lot	Quite a lot

b.) How to recognize unsafe situations in the future? (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

c.) How to apply the safety information learned? (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

d.) How to apply any of the self-defense information or techniques to future situations? (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

e.) How to manage any fear of crime or perceived risk? (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

f.) Seek out and engage in similar group counseling in the future? (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

g.) Seek out and engage in self-defense training in the future? (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

12. If so, how has the study changed the views mentioned in question #11? (Please briefly provide a little more detail)

13. Based on your experience with the present study, would you consider engaging in similar studies or projects online? (Circle One)

0	1	2	3	4
Not at all	Very little	Somewhat	A lot	Quite a lot

APPENDIX R: SATISFACTION & TECHNOLOGY SURVEY RESPONSES

The participants of both groups were provided a satisfaction and technology questionnaire (S&TQ) at the end (post) of the study. Three of the questions in the questionnaire were qualitative questions, assessing how participants might apply the psychoeducation information, use of technology, and how the study might have influenced their views on safety and self-defense. The following are the responses provided by the participants

Group	Response to S&TQ qualitative questions
Treatment group	***If so, what aspects of the information will you use after the study?*** (*n* = 14)
	"I will prepare myself for self-defense as I go about my daily activities, and I will practice strikes."
	"The physical self-defense strategies were very informative, i.e., striking techniques, etc. Hopefully, I'll never have to apply them. I already use the technology that we used in these situations. Therefore, I saw no increase in my skill level."
	"Awareness of my surroundings and using certain techniques to procure my safety from an attack by an assailant."
	"I will definitely put many of the awareness ideas into practice and continue to practice the self-defense movements we learned."
	"The different striking techniques, using my body as a tool/weapon, walking with confidence."
	"Let other people know what I have been taught to help someone else."
	"Practice the techniques reviewed with a peer or alone."
	"As many as I can remember."
	"Will be keenly aware of surrounding when alone. Cyber security info was useful."
	"I will use safety precautions that was shared…I will also share this information with family. I hope I never have to use the physical training however I feel lot more confident in protecting myself than I did before taking this class."

"I hope none at all."

"All of it I can use."

"Locking account information (Financial safety) in a safe."

"Self-defense moves.

Is there any 'Other' type of technology you've used more not listed? (*n* = 4)

“I already use the technology that we used in these sessions. Therefore, I saw no increase in my skill level.”

“I was proficient in the above technologies prior to this study.”

“Amazon Alexa”

If so, how has the study changed the views mentioned in (the previous question)? (*n* = 12)

"Crime is increasing in my town and the surrounding area. Information from the study has empowered me to prepare to defend myself when needed."

"This study has emphasized the importance of learning self-defense techniques. I plan on taking an in-person class when it becomes available through our Senior Center."

"I tended not to be as aware of the dangers as I should have been. So I will be keeping more of an awareness of my surroundings."

"I have become more aware of my surroundings and securing my immediate space."

“Different safety procedures”

"I believe I have some options that I hadn't considered as a result of the specific leading offered of techniques which was empowering.”

"Self-defense moves was very helpful."

"How to properly use the techniques, how to be more watchful of my surroundings. Measure to take for home safety and when out in the public."

"I can be able to handle myself (when) things happen."

"I really need to review of safety moves."

"I learned...Knowledge is half the battle."

"More aware of what could happen and what my response should be."

Comparison group

If so, what aspects of the information will you use after the study? (*n* = 13)

"All material covered."

"Breathe, remain calm, practice visualization, watch self-defense videos, and practice self-defense moves."

"Practice the self-defense moves so I'll be ready if needed."

"Self-defense such as using car keys or tactical pes (and self-defense techniques). Good review of community and personal and home safety tips."

"Basic self-defense (and safety information) was helpful. I also received coaching on safety measure to take more seriously."

"Had a background in some very basic self-defense and found the safety, financial, and technology information very useful. Already strapping my purse onto my shopping cart, changed some passwords, etc."

"Everything."

"Some of the self-defense information (week 4)."

"While I have always been careful about where I go and who I am around, I have a new perspective on tactics I can use to defend myself if a negative situation arises."

"Reread the handouts and discuss with a friend (the) different techniques in the safety and self-defense."

"Use the (self-defense tool) bug spray."

"If the Lord is willing, I pray all of it."

"Be more aware of situations."

Is there any 'Other' type of technology you've used more not listed? (*n* = 3)

"Not more, but do use Zoom meetings quite a bit."

"I have used WebEx, Microsoft Teams, Zoom, (and) Duo."

"Car alarms and home security systems."

If so, how has the study changed the views mentioned in (the previous question)? (*n* = 12)

"The presentation made me more aware of a need to be alert and cautious."

"Would consider (an) in-person self-defense course."

"I feel more comfortable recognizing dangerous situations and getting myself out of the situation."

"I have gone from knowing NO safety and self-defense tips to actually feeling that I could perform some in stressful or unexpected situations. I learned many new tips on keeping myself safer so I can avoid situations that might put me in uncomfortable situations where I might have to use self-defense techniques. Thanks to Meg, our instructor, who did an excellent job facilitating this study and encouraging our group participation, and giving us a multitude of information (i.e., online resources, videos) and physical demonstration (of safety tips) to supplement our written and oral material. Thank you. I am glad I participated."

"I feel more confident that basic maneuvers can be an effective tool in warding off attackers."

"Plan on being more aware about financial scams, safeguarding computer, home safety, etc. vs. need to use the physical aspects of the course."

"Empowerment me to know that I can handle situations."

"How to be more aware of situations around you and things you can do to protect yourself."

"Participating in the study offered me the opportunity to really examine my ability to take care of myself. While I am still a quite

active 'senior,' I do realize that some of the physical and emotional strengths are not as strong as they were say, 30 years ago."

"Provided insight into things I just took for granted."

"Help made me be more aware of situations, great information. Thank you, God Bless."

"I am more aware of everything now. I would like to do more training and gain more information about self-defense."

APPENDIX S: SATISFACTION & TECHNOLOGY SURVEY THEMES

The satisfaction and technology questionnaire (S&TQ) completed by all of the participants at the end (post) of the study revealed two notable themes. The first theme noted was the participant's perception on the impact of engaging in the six-week study. The second theme noted was the participant's perception of engaging in a similar, remote online study in the future. The following provides the details regarding these two themes.

Theme 1

Impact of the Remote Online Study

The perceived impact of the study. The final set of scores of the S&TS evaluated the participant's perceived impact of the study from engaging in the intervention. The treatment group reported a high impact score (M = 3.43, SD = .68) along with the comparison group (M = 3,49, SD = .52), respectively. The analysis results indicated that both groups (i.e., treatment group and comparison group) perceived engaging in the six-week study negatively impacted their safety and self-defense views. In addition, the three components of the S&TS examined various aspects of satisfaction. The S&TS also had several qualitative components that assessed the participant's satisfaction with the study, use of technology, and its perceived impact.

Theme 2

Perception of Engaging in Similar Studies

Would they participate in a similar study in the future? Lastly, even though this wasn't a qualitative question in the S&TS. Examining closer the results of this particular question was notable for the findings of the S&TS. The question asked: *Based on your experience with the present study, would you consider engaging in similar studies or projects online?* Initially, this question was included in the satisfaction question assessing the participant's satisfaction with the

research and use of technology. An evaluation of this question found that the treatment group participants reported a high score (M = 3.41, SD = 1.49) for engaging in similar studies online. Conversely, the comparison group (M = 3.67, SD = 1.53) reported an even higher score for engaging in similar studies online in the future. The results of this descriptive analysis indicate both groups would highly consider engaging in a similar study (i.e., safety or self-defense intervention) remotely online in the future. The findings are interesting since many of the participants made comments to the researcher that they would prefer engaging in such interventions in person.

APPENDIX T: IRB INFORMED CONSENT FORM

Informed Consent to Participate in Research

Information to consider before taking part in research that has no more than minimal risk.

Title of Research Study: An Augmented Counseling Approach on Fear of Crime and Self-Efficacy in Older Adults

Principal Investigator: Margaret P. Sanders, MS, Doctoral Candidate (Person in Charge of this Study)
Institution, Department or Division: East Carolina University, Department of Addictions and Rehabilitation Studies
Address: 4425 Health and Sciences Building, Greenville, North Carolina 27834
Telephone #: (252) / PI# (828) 216-7312
Study Coordinator: N/A
Telephone #: N/A

Researchers at East Carolina University (ECU) study issues related to society, health problems, environmental problems, behavior problems and the human condition. To do this, we need the help of volunteers who are willing to take part in research.

Why am I being invited to take part in this research?

The purpose of this research study is to see if receiving safety and self-defense information during a group counseling session reduces an older adult's fear of crime, and increases their confidence with maintaining their own personal safety. You are being invited to take part in this research because the study because you reported being an older adult, at least 55-years of age, who expressed interest in receiving safety and self-defense information to address any concerns regarding fear of crime. The decision to take part in this research study is yours to make. By doing this research, we hope to learn if offering older adult's safety and self-defense information in a remote group counseling setting increases perceived self-efficacy (i.e., confidence) to address safety concerns or potentially unsafe situations, and reduces a person's fear of crime or fear of being a victim of a crime. If you volunteer to take part in this research, you will be one of about thirty people to do so.

Are there reasons I should not take part in this research?

I understand I should not volunteer for this study if I am, under 55-years of age, or I am mentally emotionally unable to discuss and process various safety concerns that might bring up thoughts and feelings about the various topics discussed, or I am physically unable to receive or participate in any self-defense practices, or I do not have reliable access to technology (i..e, computer, laptop, tablet, iPad, smart phone, etc.) or reliable Wi-Fi that would prevent me from fully engaging in the remote online features of the study.

What other choices do I have if I do not take part in this research?

You can choose not to participate. If you choose not to participate in the study, but would still like to receive information on maintaining one's personal safety. Then by providing contact information (i.e., first and last name,

address, and email address), once the study has been completed, the researcher would be willing to send you an overview of the safety information covered.

Where is the research going to take place and how long will it last?
The research study will be conducted remotely online. Meaning, the study interventions will be provided through the use of a video conferencing technology, like Cisco WebEx. Any assessments used during the research will also be conducted online through the use of an online, survey platform called Qualtrics. A website link to the weekly group sessions will be provided each week, prior to the start of the next session. You will need to access the link online on the date and time of the session in order to participate in the pre-scheduled times during the study. The total amount of time you will be asked to volunteer for this study is one time a week for 60-minutes, for a total of six-sessions equaling a total of six-hours over a total of six-weeks.

What will I be asked to do?
By signing the informed consent form, you hereby authorize the primary investigator, Meg Sanders, to record both audio and video of the six sessions. By giving consent you also understand that these recordings may be viewed by my dissertation committee member and a secondary investigator, for up to six-months after the date form is signed after which the recording will be deleted. The secondary investigator is a Ph.D.-level counselor who is also employed with East Carolina University and is a professor in the Department of Addictions and Rehabilitation Studies.
The primary investigator or doctoral candidate, the dissertation committee members, and a secondary investigator participating in the study will be the only ones given access to view the audio/video recordings.
You will be asked to do the following:

- To complete the pre-participation screening forms: the demographic questionnaire and the physical readiness questionnaire
- To participate in a weekly scheduled group session. The online session will occur once a week, 60-minutes per session, for a total of six session over six-weeks.
- To be fully engaged during the length of the session and for the duration of the research.
- To complete a series of assessments, both at the beginning and again at the end of the research: A *Fear of Crime scale*, *Perceived Risk of Crime scale*, *Perceived Self-Efficacy scale*, *Weekly Check-In*, and *Satisfaction and Technology questionnaire*.
- You will also be randomly assigned to either a treatment group or comparison group. Both groups will receive psychoeducation information on safety and self-defense. The treatment group will receive additional self-defense training, which will involve engaging and practice basic self-defense skills. If assigned to the treatment group, you only have to do those self-defense skills you feel comfortable doing and can stop at any time. The self-defense activities, skills, and techniques will not involve anything more than moderate exercise and exertion. Modifications will be provided and safety reminders will be given to ensure your wellbeing, physically and emotionally.
- You may be asked to participate in a self-defense skills test, if randomly assigned to the treatment group and provided any self-defense that involves actual practice of self-defense techniques. The self-defense skills test will be used to assess one's progress with learning self-defense and using the techniques quickly, accurately, and effectively.

What might I experience if I take part in the research?
We don't know of any risks (the chance of harm) associated with this research. Any risks that may occur with this research are no more than what you would experience in everyday life. Other people who have taken part in this type of research have experienced a decrease in fear of crime and perceived risk, decreased anxiety, increased self-confidence in handling unsafe or even potentially threatening situations, increased subject wellbeing, increased safety awareness, increased positive affect, increased ability to manage one's mental and emotional state when faced with a potentially threatening situation, and increased confidence with engaging in leisure activities out in the community,

whether alone or with family and/or friends. By participating in this research study, you may also experience these benefits.

Will I be paid for taking part in this research?
We will not be able to pay you for the time you volunteer while being in this study.

Will it cost me to take part in this research?
It will not cost you any money to be part of the research.

Who will know that I took part in this research and learn personal information about me?
ECU and the people and organizations listed below may know that you took part in this research and may see information about you that is normally kept private. With your permission, these people may use your private information to do this research:

- The University & Medical Center Institutional Review Board (UMCIRB) and its staff have responsibility for overseeing your welfare during this research and may need to see research records that identify you.
- People designated by East Carolina, such as the primary investigator's dissertation committee chair and dissertation committee members.

How will you keep the information you collect about me secure? How long will you keep it?
Your identifying information and any data collected will be placed in an electronic, excel spreadsheet and stored on a secure, lockdown flash drive. To answer any research questions a data set will be compiled from the electronic, excel spread sheet. All identifying information will be removed from the electronic data set, and you will be given a participation ID number. Only your ID number will be used when reporting the results of the data. Similar to how the data will be stored, the audio and video recordings will be kept on a secure, lock down flash drive, and then transferred to the Department of Addictions and Rehabilitation Studies' piratedrive. All information stored on the secure flash drive will be kept for up to three-years on the department's piratedrive, after which the data will be properly destroyed by erasing the digital data. None of the information collected will be used for future research. The audio and digital video recordings of the research will only be viewed to ensure the integrity of the design and procedures of the research. Only the members of the primary investigator's dissertation committee and/or committee chair will have permission to view the data or audio/video recordings. No one outside of the committee will be given permission to view the audio/video recordings. If at any time the secure, lockdown flash drive is misplaced or lost by the primary investigator, then the loss will be reported immediately to ECU's UMCIRB. All security protocols, federal HIPAA and confidentiality policies, and the policies and procedures outlined by the UMCIRB for collection, storing, destroying, and reporting the loss of your secure information will be adhered to at all times.

What if I decide I don't want to continue in this research?
You can stop at any time after it has already started. There will be no consequences if you stop and you will not be criticized. You will not lose any benefits that you normally receive.

Who should I contact if I have questions?
The people conducting this study will be able to answer any questions concerning this research, now or in the future. You may contact the Principal Investigator at (828) 216-7312 (days, between 9:00 AM and 6:00 PM).

If you have questions about your rights as someone taking part in research, you may call the University & Medical Center Institutional Review Board (UMCIRB) at phone number 252-744-2914 (days, 8:00 am-5:00 pm). If you would like to report a complaint or concern about this research study, you may call the Director for Human Research Protections, at 252-744-2914.

Is there anything else I should know?

Your information collected as part of the research, even if identifiers are removed, will not be used or distributed for future studies.

I have decided I want to take part in this research. What should I do now?
The person obtaining informed consent will ask you to read the following and if you agree, you should sign this form:

- I have read (or had read to me) all of the above information.
- I have had an opportunity to ask questions about things in this research I did not understand and have received satisfactory answers.
- I know that I can stop taking part in this study at any time.
- By signing this informed consent form, I am not giving up any of my rights.
- I have been given a copy of this consent document, and it is mine to keep.

I have read, reviewed, and understand the informed consent form provided above. I have also reviewed the description of the research study and I am informed of the risks and benefits involved. I also understand the requirements for participating in the study with the understanding I can withdraw at any time. I understand any information I provide will be treated confidentially and I can request at any time for my information and data not to be used. Furthermore, I am assured that any future questions I may have will be answered by a member of the research team. Lastly, I understand I will receive a copy of this informed consent form.

By clicking 'yes,' I agree to the statement above and voluntarily agree to take part in this study. Or by clicking 'no,' I am declining participation in the study.

APPENDIX U: UNIVERSITY& MEDICAL CENTER INSTITUTIONAL REVIEW BOARD APPROVAL LETTER

EAST CAROLINA UNIVERSITY
University & Medical Center Institutional Review Board
4N-64 Brody Medical Sciences Building· Mail Stop 682
600 Moye Boulevard · Greenville, NC 27834
Office **252-744-2914** · Fax **252-744-2284** ·
rede.ecu.edu/umcirb/

Notification of Initial Approval: Expedited

From: Social/Behavioral IRB
To: Margaret Sanders
CC: Nicholas Murray
Margaret Sanders
Date: 5/17/2021
Re: UMCIRB 20-000118
Augmented counseling program on fear of crime and self-efficacy in older adults

I am pleased to inform you that your Expedited Application was approved. Approval of the study and any consent form(s) occurred on 5/13/2021. The research study is eligible for review under expedited category # 4,6,7. The Chairperson (or designee) deemed this study no more than minimal risk.

As the Principal Investigator you are explicitly responsible for the conduct of all aspects of this study and must adhere to all reporting requirements for the study. Your responsibilities include but are not limited to:

1. Ensuring changes to the approved research (including the UMCIRB approved consent document) are initiated only after UMCIRB review and approval except when necessary to eliminate an apparent immediate hazard to the participant. All changes (e.g. a change in procedure, number of participants, personnel, study locations, new recruitment materials, study instruments, etc.) must be prospectively reviewed and approved by the UMCIRB before they are implemented;

2. Where informed consent has not been waived by the UMCIRB, ensuring that only valid versions of the UMCIRB approved, date-stamped informed consent document(s) are used for obtaining informed consent (consent documents with the IRB approval date stamp are found under the Documents tab in the ePIRATE study workspace);

3. Promptly reporting to the UMCIRB all unanticipated problems involving risks to participants and others;

4. Submission of a final report application to the UMICRB prior to the expected end date provided in the IRB application in order to document human research activity has ended and to provide a timepoint in which to base

document retention; and

5. Submission of an amendment to extend the expected end date if the study is not expected to be completed by that date. The amendment should be submitted 30 days prior to the UMCIRB approved expected end date or as soon as the Investigator is aware that the study will not be completed by that date.

The approval includes the following items:

Name	Description
DEMOGRAPHIC QUESTIONNAIRE_03.2021.docx	Data Collection Sheet
Fear of Crime Scale	Surveys and Questionnaires
Flyer_Senior Safety 101.docx	Recruitment Documents/Scripts
General message and learning objectives	Recruitment Documents/Scripts
Group Weekly Check-In Survey.docx	Surveys and Questionnaires
Implicit Instructional Matrix_03.2021.docx	Additional Items
Informed Consent 5 11 21	Consent Forms
PAR-Q+_January 2021_.pdf	Surveys and Questionnaires
Perceived Risk of Crime Scale	Surveys and Questionnaires
Perceived Self-Efficacy Scale	Surveys and Questionnaires
Psychoeducation Manipulation Checklist.docx	Additional Items
PSYCHOEDUCATION SAFETY CURRICULUM.docx	Additional Items
Safety Resources_Sanders Dissertation.docx	Additional Items
Sanders_Doctoral Dissertation-Ch. 1-2 & 3_03.08.2021.docx	Study Protocol or Grant Application
Satisfaction and Technology Questionnaire.docx	Surveys and Questionnaires
SD Manipulation Checklist.docx	Additional Items
SD Proficiency Test_Sanders Dissertation.docx	Surveys and Questionnaires
Self-Defense Curriculum_03.2021.docx	Additional Items
Website and Social Media Advertisement for Research Study.docx	Recruitment Documents/Scripts
Week 1: Personal Safety-psychoeducation material	Additional Items
Week 2: Verbal Self-Defense-psychoeducation material	Additional Items
Week 3: Community Safety-psychoeducation material	Additional Items
Week 4: Mental Self-Defense-psychoeducation material	Additional Items
Week 5: Home Safety-psychoeducation material	Additional Items
Week 6: Other Safety Tips-psychoeducation material	Additional Items

For research studies where a waiver or alteration of HIPAA Authorization has been approved, the IRB states that each of the waiver criteria in 45 CFR 164.512(i)(1)(i)(A) and (2)(i) through (v) have been met. Additionally, the elements of PHI to be collected as described in items 1 and 2 of the Application for Waiver of Authorization have been determined to be the minimal necessary for the specified research.

The Chairperson (or designee) does not have a potential for conflict of interest on this study.