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VICTIMIZATION OF THE ELDERLY: AN APPLICATION OF LIFESTYLES/ROUTINE ACTIVITIES THEORY

BY
CHRISTINA POLICASTRO

A Dissertation Submitted in Partial Fulfillment
of the Requirements for the Degree
of
Doctor of Philosophy
in the
Andrew Young School of Policy Studies
of
Georgia State University

GEORGIA STATE UNIVERSITY
2013

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ACCEPTANCE

This dissertation was prepared under the direction of the candidate's Dissertation Committee. It has been approved and accepted by all members of that committee, and it has been accepted in partial fulfillment of the requirements for the degree of Doctor of Philosophy in Criminal Justice and Criminology in the Andrew Young School of Policy Studies of Georgia State University.

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August 2013

DEDICATION

I would like to dedicate this dissertation to my husband, Chris Policastro, for all of his support, encouragement, and love. I never would have made it through graduate school without him and he definitely deserves an award for putting up with me during this process.

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I would like to express my deepest gratitude to the many individuals who have contributed to this dissertation. First, I want thank my major advisor and mentor, Dr. Brian K. Payne, for all of his support and guidance. I sincerely appreciate your patience, as well as all of the time you have dedicated to me. I would also like to thank Dr. Leah E. Daigle, Dr. Mary A. Finn, and Dr. Sheryl Strasser for serving on my committee and for all of their valuable input. I know this has been a time-consuming endeavor and I am truly appreciative of their commitment, as well as honored to have worked with them.

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TABLE OF CONTENTS

DEDICATION ..... **vi**

ACKNOWLEDGMENTS ..... **vii**

LIST OF TABLES ..... **xiii**

LIST OF FIGURES ..... **xv**

ABSTRACT ..... **xvi**

CHAPTER 1: INTRODUCTION **1**

CHAPTER 2: LITERATURE REVIEW **7**

The Study of Victimization Among the Elderly 7

Defining Elder Abuse 11

Physical abuse 12

Sexual abuse 15

Psychological abuse 15

Financial abuse 17

Neglect 19

An Integrated Definition of Elder Abuse 20

The Extent of Elder Abuse 21

Traditional Explanations for Elder Abuse 25

Intraindividual Explanations 26

Victim/offender psychological and emotional problems 27

Victim/offender impairment 29

Offender alcohol abuse 32

Dependency 33

Stress 35

Social Isolation 37

Intergenerational Transmission of Violence.....39

Theoretical Framework for the Current Study.....40

Routine Activities Theory 42

Lifestyle-Exposure Theory 47

Integrated Lifestyles/Routine Activities Theory.....51

Summary of Empirical Support for the L/RAT Framework.....53

Lifestyles/Routine Activities Theory and Elder Abuse 56

Exposure to Motivated Offenders.....57

Proximity to Motivated Offenders 61

Target Suitability 64

Capable Guardianship 66

Summary of Empirical Support for Age-related Propositions.....68

The Current Study.....69

CHAPTER 3: METHODOLOGY 74

Data.....74

Sample 78

Independent Variables 79

Target Suitability 79

Age.....79

Income 81

Capable Guardianship.....81

Attend church regularly 82
Socialize weekly 82
Feel connected to others 83
Proximity to Motivated Offenders 84
Neighborhood environment scale 84
Number of household members 85
Exposure to Motivated Offenders 85
Employment status 85
Control Variables 86
Dependent Variables 86
Telemarketing Fraud Victimization 86
Telemarketing Fraud Targeting 87
Theft 88
Physical Abuse 88
Psychological Abuse 89
Overall Victimization 89
Plan of Analysis 90
Bivariate Analyses 90
Multivariate Analyses 91
CHAPTER 4: RESULTS 93
Bivariate Results 94
Age Category and Lifestyles/Routine Activities Variables 94
Age Category and Victimization 98

Capable Guardianship and Victimization 100
Exposure to Motivated Offenders and Victimization 102
Target Suitability and Victimization 104
Proximity to Motivated Offenders and Victimization 106
Control Variables and Victimization 109
Summary of Bivariate Results 111
Multivariate Results 113
Telemarketing Fraud 115
Telemarketing fraud targeting 115
Telemarketing fraud victimization 117
Physical Abuse.....119
Theft 121
Psychological Abuse 123
Summary of Multivariate Results for Each Type of Victimization.....125
Overall Victimization.....128
Summary of Multivariate Results for Overall Victimization 131
CHAPTER 5: DISCUSSION AND CONCLUSION 133
Overview of Results 134
Age and Lifestyles/Routine Activities 134
Target Suitability 135
Capable Guardianship 139
Exposure to Motivated Offenders 140
Proximity to Motivated Offenders 143

Control Variables and Victimization Risk 146

Implications for Theoretical Development 147

Implications for Policy and Practice 152

Limitations 153

Future Research 157

Conclusion 159

APPENDIX A 160

APPENDIX B 161

REFERENCES.....164

VITA 177

LIST OF TABLES

Table 3.1 Telephone Survey Sample Demographic Characteristics.....75

Table 3.2 College Student Sample Demographic Characteristics 76

Table 3.3 Adult Client Sample Demographic Characteristics 77

Table 3.4 Characteristics of Full Sample.....79

Table 3.5 Victimization Experiences of Full Sample 87

Table 4.1 Summary of Hypotheses.....93

Table 4.2 Age by Target Suitability (Income) 95

Table 4.3 Age by Capable Guardianship 96

Table 4.4 Age by Exposure (Employment Status) 96

Table 4.5 ANOVA Results 97

Table 4.6 Age by Victimization Type.....99

Table 4.7a Capable Guardianship by Victimization Type.....100

Table 4.7b Capable Guardianship by Victimization Type.....101

Table 4.8 Exposure (Employment Status) by Victimization Type 103

Table 4.9 Target Suitability (Income) by Victimization Type 105

Table 4.10 Independent Sample *t*-Tests for Continuous Age and Victimization Type ...107

Table 4.11 Independent Sample *t*-Tests for Proximity and Victimization Type 108

Table 4.12 Control Variables by Victimization Type.....110

Table 4.13 Logistic Regression Predicting Telemarketing Fraud Targeting.....116

Table 4.14 Logistic Regression Predicting Telemarketing Fraud Victimization 118

Table 4.15 Logistic Regression Predicting Physical Abuse 120

Table 4.16 Logistic Regression Predicting Theft 122

Table 4.17 Logistic Regression Predicting Psychological Abuse 124

Table 4.18 Summary of Support for Hypotheses.....126

Table 4.19 Logistic Regression Predicting Overall Victimization 129

Table 4.20 Logistic Regression Predicting Overall Victimization for Age Groups 130

LIST OF FIGURES

Figure 2.1 Routine Activities Theory Conceptual Model.....44

Figure 2.2 A Lifestyle-Exposure Model of Personal Victimization.....52

Figure 2.3 Lifestyles/Routine Activities Theory Conceptual Model.....54

ABSTRACT

The study of victimization among the elderly crosses multiple disciplines. A large body of research focuses on identifying the nature of and risk factors for elder abuse, while theory has remained relatively underdeveloped in the elder abuse literature. In comparison, the criminological literature is characterized by a plethora of theoretically-driven studies that explore the causes of crime and victimization. Criminology, however, is heavily focused on crimes committed by and against younger individuals. The current study filled a gap in both bodies of work by using the lifestyles/routine activities theoretical (L/RAT) framework, a widely-used criminological perspective, to understand victimization risk among a sample of 1,257 younger and older adults. Using multivariate logistic regression models, it was found that age was a significant predictor of victimization risk. Consistent with findings from the criminological literature, victimization risk generally declines with age. Findings also suggested that the effects of L/RAT variables vary across offense type, as well as across the lifecourse. Implications for theoretical development, policy, and practice are discussed, as well as directions for future research.

CHAPTER 1

INTRODUCTION

Crimes committed against the elderly are a relatively new subject in the criminal justice and criminology literature. Traditionally, criminologists have cited the low victimization rates of the elderly drawn from data sources such as the National Crime Victimization Survey (NCVS) and the FBI's Uniform Crime Report (UCR) to justify their focus on the victimization experiences of the young and their inattention to elder victimization (Payne, 2011; Payne & Gainey, 2006). Over the past 40 years, social scientists' interest in the victimization experiences of the elderly has increased and a growing body of research indicates that a nontrivial proportion of elders experience victimization. A study by Acierno et al. (2010) found that one out of every 10 elders surveyed had experienced some form of abuse and/or potential neglect in the past 12 months.

Further, there is evidence to suggest that the characteristics and consequences of victimization among this population are unique. For instance, studies generally indicate that males are at a higher risk of being victims of robbery (see Lauritsen & Heimer, 2009). However, Bachman and colleagues (1998) examined NCVS data and found that men and women over the age of 65 faced approximately the same risk of being robbed. This type of victimization pattern does not exist for any other age group and the authors note is "unlike any other time during the life course" (Bachman, Dillaway, & Lachs, 1998, p. 189). There is also evidence that the elderly are more likely to incur injuries and need medical attention as a result of their victimization in comparison to their younger counterparts (Bachman, Dillaway, & Lachs, 1998; Faggiani & Owens, 1999). Collectively, the prevalence and distinct character of elder victimization support the need

for research that further explores the patterns and risk factors for victimization among this population.

A large body of research has explored the nature of and risk factors for elder victimization within the context of caregiving and familial relationships. This body of work branches across multiple disciplines and has formed what commonly is referred to as the elder abuse literature. Scholars also have extended the concept of elder abuse to include all forms of victimization experienced by elders regardless of whom the offender is and the context of the victimization (Payne, Berg, & Byars, 1999). Although empirical studies of elder abuse have provided considerable insight into the victimization experiences of older adults, identifying risk factors for elder abuse has been the predominant focus in the literature while theoretical perspectives have remained relatively underdeveloped (Burnight & Mosqueda, 2011).

Attempts to extend theoretical principles derived from social learning, exchange, and feminist theory to elder abuse have been proposed, but few researchers have performed complete and/or even partial tests of these theoretical perspectives, and the few studies that have performed tests have yielded inconsistent support. Despite lacking a solid theoretical framework, studies have highlighted a number of risk factors for elder abuse victimization including intraindividual characteristics of victims and offenders (i.e. emotional problems, alcoholism, health and cognitive impairments), dependency, stress, and social isolation. Researchers have provided reasonable explanations for why specific factors may be related to elder abuse, but have yet to construct a coherent theoretical model complete with testable propositions that outlines the causal process that links the aforementioned risk factors to increased risk of elder abuse.

In comparison, criminologists have proposed a number of different theoretical explanations for crime and victimization. Further, there is a large body of literature dedicated to empirically testing the ability of predominant criminological theories to predict adult offending, delinquency, and victimization. Unfortunately, criminologists rarely have explored the ability of criminological theory to account for elder abuse, both offending and victimization. Existing criminological perspectives have the potential to broaden our understanding of elder abuse by clarifying why particular characteristics of victims, offenders, and situations are related to an increased risk of elder abuse. One theoretical perspective, lifestyles/routine activities theory (L/RAT), appears to be an especially promising framework for understanding victimization risk among the elderly. The L/RAT framework has been applied to elder victimization, albeit in a limited manner, to understand differential risk of victimization across age groups (see Cohen, Kluegel, & Land, 1981; Kennedy & Forde, 1990; Messner & Tardiff, 1985; Miethe, Stafford, & Long, 1987). Scholars also have used aspects of the L/RAT framework to account for elder abuse in particular contexts, specifically nursing homes (Harris, 1999; Payne & Gainey, 2006). This literature has suggested that several of the lifestyle characteristics and routine activities of the elderly that traditionally are viewed as protective within the L/RAT framework (e.g. increased home-centered activity, self-isolation) may actually increase elders' risk of certain forms of victimization such as family violence and offenses that target the elders' home or assets such as fraud and burglary.

However, none of the existing studies that employ the L/RAT framework have examined the utility of this perspective for explaining multiple forms of victimization

experienced by the elderly. In line with the original domain of L/RAT, the bulk of the extant research that has applied this perspective to elder victimization has focused on traditional forms of victimization that are violent and predatory in nature (i.e. robbery, homicide, and physical abuse). As noted by Felson (2001), the L/RAT perspective has proven to be especially versatile and offenses like drug dealing and cybercrime, which formerly were believed to fall outside the domain of the theory, have been examined within this theoretical framework. Little is known, however, about how applicable the L/RAT framework is with regard to types of victimization that are commonly experienced by elders, and that are generally not considered to be violent and/or predatory such as emotional abuse and telemarketing fraud.

Theoretically-driven studies of elder victimization are of particular importance given that the rate of elder victimization can be expected to increase considerably over the next several decades due to the "graying" of the baby-boomer generation. According to U.S. Census Bureau projections, over 88 million individuals in the U.S. will be age 65 or older by 2050, which means that 20% of the U.S. population will be composed of individuals falling within this age group (Vincent & Velkoff, 2010). Considering the distinct character and potentially serious consequences of elder victimization, it is imperative that more research examines the circumstances surrounding elder victimization and scholars continue to explore the ability of criminological theories to account for victimization among this segment of the population. The current study is a step in this direction and is intended to provide greater insight into the dynamics surrounding victimization of the elderly by performing a partial test of the L/RAT perspective.

Drawing upon findings from the elder abuse research and empirical tests of the L/RAT framework, this study seeks to fill gaps in both literatures by focusing on lifestyle and routine activities factors that are related to victimization for a sample of older and younger adults. By applying L/RAT, a predominant theoretical framework used to investigate victimization risk, the current study will begin to address the theoretical weaknesses in the elder abuse literature, as well as aid in the expansion of the criminological literature beyond its primary focus on young adults and adolescents. The study will explore the applicability of L/RAT to diverse forms of victimization experienced by younger and older adults and examine whether L/RAT risk factors influence victimization risk in the manner predicted by the theoretical framework. By focusing on distinct forms of victimization separately, it can also be determined whether the effects of risk factors vary by victimization type.

The primary focus of the current research is to consider how age influences victimization risk, thus a key question explored in this study is whether older adults are at a greater risk of victimization for specific forms of victimization such as fraud. Further, by investigating the influence of age and L/RAT risk factors on overall victimization risk, the current study will explore whether these factors contribute to distinct patterns of victimization among older adults and if factors that are commonly perceived as protective within the framework are, in reality, putting individuals at a greater risk for victimization. More explicitly, do the lifestyle and routine activities risk factors for victimization vary by age?

The subsequent chapter will provide a brief history of the study of elder victimization, as well as present a detailed discussion of the definition of elder abuse and

explore the extent of this form of victimization. The second chapter will also describe common explanations for elder abuse, as well as the research findings related to these explanations. This chapter will conclude by exploring the lifestyles/routine activities theoretical framework and the implications of this framework for organizing findings from the criminological and elder abuse literature. Chapter 3 will describe the methods that will be used to investigate the relationship between factors drawn from the L/RAT framework and victimization for older and younger adults. The fourth chapter will present the findings from the analyses. Lastly, chapter 5 will provide a detailed discussion of the findings and the implications of the findings for policy, practice, theory, and future research.

CHAPTER 2

LITERATURE REVIEW

The Study of Victimization Among the Elderly

Interest in the victimization experiences of older adults emerged during the 1970s. Among the earliest studies of the phenomenon, Charles Stannard's (1973) seminal study based on data collected through participant observation indicated that nursing home staff were abusing and neglecting their patients in a variety of harmful ways. By the mid-1970s, evidence that the health care community was encountering elder abuse began to emerge with the concept of "granny bashing" beginning to surface in British medical journals. Baker (1975) used the term to describe violent and harmful acts committed against the elderly by family members and health care providers. According to Wolf (2000), it was not until the late 1970s when testimony on "parent battering" was presented before a 1978 United States congressional subcommittee on family violence that elder abuse was brought "from behind closed doors onto the national stage" (p. 6). Although the concepts "granny bashing" and "parent battering" drew attention to the phenomenon, these terms eventually were replaced with more comprehensive concepts such as "elder abuse" and "elder maltreatment."

Initially, elder abuse was conceptualized as a social problem with scholars drawing parallels between the victimization of older adults and child abuse (Payne, 2011; Payne & Berg, 2003). Scholars assumed that elderly victims were vulnerable and dependent, much like children, which contributed to their victimization. Early studies seemed to confirm this assumption indicating that abused elders exhibited signs of increased dependency, frailty, and physical, as well as mental impairment (Block & Sinnott, 1979; Hickey & Douglass, 1981; Lau & Kosberg, 1979; Quinn & Tomita, 1986).

Much of the early elder abuse research was exploratory in nature and primarily based on case descriptions and/or official data drawn from small samples of cases that were brought to the attention of service providers. These limitations restricted the representativeness and generalizability of early findings, as well as hindered efforts to establish the extent of elder abuse.

As attention to elder abuse increased in the 1980s, researchers attempted to address some of the weaknesses of earlier studies with the integration of comparison groups, as well as data collected from interviews and surveys of victims into their research designs. It was during this decade that Pillemer and Finkelhor (1988) conducted the first elder abuse study to employ a large, random sample of community-dwelling elders. Based on their interviews with 2,020 Boston residents ages 65 and older, they estimated that anywhere from 25 to 39 elders had experienced some form of abuse (i.e. physical abuse, verbal aggression, and/or neglect) for every 1,000 elders in Boston's population (Pillemer & Finkelhor, 1988, p. 53). Assuming that a nationally representative study of elder abuse found a victimization rate similar to that in Boston, Pillemer and Finkelhor (1988) suggested that between 701,000 and approximately 1,000,000 elders are abused in the United States. The figures provided by Pillemer and Finkelhor (1988) have been cited throughout the literature as one of the "best estimates" of the extent of elder abuse available (see Bonnie & Wallace, 2003).

Along with attempts to establish prevalence rates, findings from the elder abuse research of the 1980s soon began to challenge the assumption that elder abuse was similar to child abuse, with studies showing that abused elders were not as frail and dependent as prior studies had suggested. For example, Phillips (1983) interviewed 44

non-abused and 30 abused elders to investigate the relationship between individual characteristics of the elderly and abuse. With regard to vulnerability, she found no significant differences in the level of physical functioning between abused and non-abused elders (Phillips, 1983). In a later study based on data from 42 elder abuse victims and 42 non-victims, Pillemer (1985) established that perpetrators of elder abuse were more dependent on their elderly victim than were the non-abusive caregiver comparison subjects. Further, this generation of studies suggested that elder abuse may share more in common with intimate partner violence rather than child abuse with spouses comprising the majority of offenders (Finkelhor & Pillemer, 1988; Pillemer, 1985; Pillemer & Finkelhor, 1988). Evidence of spouse abuse among the elderly highlighted that caregivers were not the sole perpetrators of elder abuse. Consequently, scholars began to argue that the approach to elder abuse needed to be reframed and suggested that services for elder abuse victims should be modeled after services for battered women (Pillemer & Finkelhor, 1988).

During the 1990s, researchers and policymakers began to frame elder abuse as a crime problem rather than a social problem (Payne & Berg, 2003). Indeed, every state throughout the United States currently has some form of legislation that permits the state to protect and provide services to elders, as well as other vulnerable adults (Ehrlich & Anetzberger, 1991; Wolf, 1996b). Studies of elder abuse in the 1990s expanded on prior research by gathering data on larger, more representative samples, as well as by continuing to identify risk factors associated with elder abuse. A number of key studies emerged during this decade including the National Elder Abuse Incidence Study (NEAIS), which was the first study to produce national incidence estimates of elder

abuse. Based on data derived from official case reports and sentinel (i.e. service professionals) reports, the NEAIS found that approximately 450,000 individuals ages 60 and older living in the community experienced abuse and/or neglect during 1996 (Tatara, 1998).

While elder abuse has evolved from a social problem into a distinct crime issue, the study of this phenomenon crosses multiple disciplinary boundaries. Scholars emanating from diverse disciplines such as gerontology, sociology, social work, nursing, criminology, and criminal justice have shown interest in the victimization experiences of older adults (Payne, 2002; Payne, 2011). Although this cross-disciplinary interest has produced considerable insight into the nature, consequences, and potential causes of elder abuse, it has also led the literature to be somewhat fragmented and studies have seldom viewed elder abuse from an inter-disciplinary, integrated perspective. One significant consequence of this fragmentation is the lack of a consistent definition of elder abuse. The current chapter begins by discussing issues associated with defining the concept of elder abuse also referred to as elder victimization. Further, attention will be given to studies that have attempted to establish the scope of victimization among older adults. This chapter will also discuss and critique the current state of theoretical development in the elder abuse literature. It will be suggested that criminological theory is a particularly promising avenue for explaining the occurrence of elder abuse. The focus will then shift to lifestyles/routine activities theory and how this perspective can be used to integrate findings in the literature across disciplines, as well as illuminate why particular risk factors are related to higher risk of elder victimization.

Defining Elder Abuse

Scholars use a number of different concepts to refer to the victimization experiences of older adults including, but not limited to elder abuse, elder maltreatment, elder mistreatment, abuse in later life, and elder victimization. Elder abuse is among the most commonly used concepts; however, scholars have yet to agree upon a uniform definition of the concept. Researchers typically conceptualize elder abuse in a manner that is consistent with their particular discipline's understanding of the phenomenon (Payne, 2002; Payne, 2011; Payne & Gainey, 2009). Moreover, statutes vary across states with regard to which behaviors are considered elder abuse and at what specific age a person qualifies for protection under elder abuse legislation (Payne 2011; Payne and Gainey 2009). It is recognized that the elderly can become victims of abuse in domestic or community settings, as well as institutional settings like nursing homes, assisted living facilities, and other long-term care settings (Lowenstein, 2009). The majority of researchers include physical, sexual, and emotional/psychological abuse, as well as financial exploitation, neglect, and abandonment within their definition of elder abuse (CDC, 2010; National Center on Elder Abuse, 2011a; Tatara, 1998; Wolf, 1996a; Wolf, 1996b). Although scholars generally agree that elder abuse involves a broad range of behaviors and occurs in diverse settings, there is considerable variation across studies with regard to what types of behaviors fall within each category of abuse, who is considered a perpetrator of "elder abuse," and at what age an individual is classified as an "elder."

Elder abuse includes a diverse range of harmful behaviors and scholars have noted that studies must acknowledge the differences between types of abuse to facilitate a more accurate understanding of this complex phenomenon (Anetzberger, 2000; Jackson

& Hafemeister, 2011; Payne, 2011). In order to provide a general overview of the types of victimization experienced by elders, the categories outlined by the National Center on Elder Abuse (NCEA) will be used as a general guide to distinguish among types of abuse and where applicable, subtypes of a given form of abuse will be discussed. The types of abuse delineated by the NCEA correspond to the six behaviors (i.e. physical abuse, sexual abuse, emotional/psychological abuse, financial abuse, neglect and abandonment) that most researchers include underneath the broader umbrella of elder abuse. While each form will be discussed separately, it is important to note that research has suggested that many older victims experience multiple forms of abuse (Choi, Kulick, & Mayer, 1999; Fisher & Regan, 2006; Quinn & Tomita, 1986).

Physical abuse. In general, physical abuse is defined as the use of physical force that may lead the victim to experience injury, physical pain, or impairment (Lachs & Pillemer, 1995; NCEA, 2011a; Tatara, 1998; Wolf, 1996b). Physical abuse is typically what comes to mind when individuals think of elder abuse and includes a variety of harmful acts committed against the elderly such as hitting with fists or objects, kicking, slapping, and/or burning. Improper use of restraints and force-feeding, as well as all forms of physical punishment such as spanking also fall within the scope of physical elder abuse (NCEA, 2011a; Payne, 2011; Wolf, 1996a). Payne (2011) divides physical abuse into subtypes based on the context in which the abuse occurs. He describes five forms of physical abuse: parent abuse, spouse abuse, patient abuse, other violent crimes, and homicide (Payne, 2011, p. 68).

Parent abuse includes physically violent acts committed by adult children against their elderly parents. According to the National Elder Abuse Incidence Study (NEAIS),

adult children made up the largest category of perpetrators of elder abuse comprising approximately 47% of offenders (Tatara, 1998). In comparison, several studies have suggested that adult children are not the primary offenders in elder abuse cases with spouses comprising the majority of elder abuse offenders. For instance, Pillemer and Finkelhor (1988) found that 58% of elder abuse offenders were spouses, while a smaller, yet still substantial percentage (24%) of offenders were identified as the victim's adult child. Spouse abuse among older couples can be categorized as either spouse abuse grown old or as a new experience with the abusive behavior only developing as the couple has reached an advanced age (Hightower, Smith, & Hightower, 2006; Leisey, Kupstas, & Cooper, 2009; Straka & Montminy, 2006; Zink, Jacobson, Pabst, Regan & Fisher, 2006). Relationships categorized as spouse abuse grown old are those in which abuse has occurred throughout the relationship and has persisted as the couple has aged (Harris, 1996; Leisey, Kupstas, & Cooper, 2009). Although spouse abuse grown old involves protracted experiences of abuse, new experiences of spouse abuse among the elderly may take place when an individual begins an intimate relationship as an older adult and experiences violence within the context of his or her new relationship. This type of spouse abuse may also occur in established, long-term relationships where a formerly non-violent partner develops an age-related illness or disability that causes him or her to behave abusively towards the other partner.

Physical abuse committed by employees against elderly residents living in long-term care settings such as nursing homes and assisted living facilities, as well as physically abusive acts that occur in other professional caregiving settings like hospitals and adult day care centers is considered to fall under the broad category of patient abuse.

The unnecessary use of physical and/or chemical restraints to control a patient is a type of physical abuse that can take place within this particular context (Payne, 2011). In a study of 488 cases of patient abuse reported to Medicaid Fraud Control Units (MFCUs), Payne and Cikovic (1995) found that physical abuse was the most common form of abuse comprising over 84% of incidents reported to MFCUs.

In addition to known offenders, the elderly may also be physically abused by strangers. Payne (2011) categorizes violent behaviors that often are committed by strangers as "other violent crimes" and includes offenses such as robbery, as well as aggravated and simple assault (p. 72). Robbery occurs when an offender takes or attempts to take something from another person by using force, threatening to use force, or by causing the victim to be fearful (FBI, 2011). Assaults are unlawful completed or attempted physical attacks that may or may not result in the victim being injured. Aggravated assault refers to unlawful attacks, whether completed or attempted, that involve weapons regardless of whether the victim incurred physical injuries or attacks that occur without the use of a weapon, but result in serious bodily injury (Bureau of Justice Statistics, 2012). As will be discussed in a subsequent section, other violent crimes are often the offenses that are captured by official crime statistics reported by the Federal Bureau of Investigation in the *Uniform Crime Report* (UCR), as well as by victims in victimization surveys such as the National Crime Victimization Survey (NCVS). The final category of physical abuse identified by Payne (2011) are homicides. The term homicide refers to the unlawful killing of a human being by another (FBI, 2011).

Sexual abuse. Elder sexual abuse is identified in the literature as any form of nonconsensual sexual contact with an elderly individual (NCEA, 2011a; Payne, 2011; Tatara, 1998). Although this form of abuse is physical in nature, it is often differentiated from general physical abuse because of the distinct type of harm experienced by elderly sexual abuse victims. Sexual abuse of an elderly individual includes a number of different abusive behaviors such as nonconsensual sexual touching, rape, sexual harassment, and sexual coercion (Ramsey-Klawsnik, 1996). Ramsey-Klawsnick and Brandl (2009) separate sexual abuse into three different categories: hands-on behavior, hands-off behavior, and harmful genital practices. Hands-on behaviors are those in which the offender has direct contact with the victim and includes behaviors such as rape and groping. Hands-off behaviors consist of abusive acts where the offender does not have direct contact with the victim. Specific examples of hands-off sexual abuse are voyeurism, exhibitionism, and sexual harassment (Ramsey-Klawsnick & Brandl, 2009). Finally, harmful genital practices include "painful, intrusive, or unnecessary procedures that are committed during the provision of personal care" to a dependent elder (Ramsey-Klawsnick & Brandl, 2009, p. 1). The improper use of creams, medications, and enemas, as well as genital or rectal penetration while bathing are all examples of harmful genital practices (Ramsey-Klawsnick, 1996).

Psychological abuse. Psychological abuse, also referred to as emotional abuse, has been defined in the literature as the "infliction of mental anguish" (Pillemer & Wolf, 1986, p. 220; Wolf, 1996b, p. 5). Psychological abuse can manifest in multiple ways with common examples including repeated verbal aggression such as insults and derogatory speech directed at an elderly individual, as well as humiliation, intimidation,

and harassment of an elder (Payne, 2011; Pillemer & Finkelhor, 1988; Tatara, 1998; Wolf, 1996b). Further, isolation from family, peers, and the community is commonly cited as a form of psychological abuse (NCEA, 2011a; Payne, 2011; Wolf, 1996b). Other forms of psychological abuse involve offenders threatening a dependent elder with the possibility of being abandoned or institutionalized (Lachs & Pillemer, 1995; Payne, 2011). Infantilization is another type of psychological abuse experienced by the elderly. According to Salari (2005), infantilization refers to "age inappropriate speech and behavior patterns, activities, and physical environments" that treat the elder as if he or she were a child (p. 55). Examples of infantilization include baby talk (i.e. condescending, exaggerated and simplistic speech), child-like nicknames (i.e. kiddo, buddy), confinement, and the use of verbal reprimands (Salari, 2005).

Johnson (1995) discusses how psychological abuse is often difficult to identify because many of the acts that are considered psychologically abusive "are not concrete" (p. 221). That is, unlike physical abuse, psychological abuse does not leave visible injuries, thereby it is often difficult to prove that it has occurred (Quinn & Tomita, 1986). However, Quinn and Tomita (1986) argue that the behavior of an elder can reveal if he or she has been the victim of psychological abuse and describe a number of indicators that signify the presence of this type of abuse. For instance, they suggest that elderly victims of psychological abuse may display signs of increased confusion, fear, depression, evasiveness, and/or anxiety (Quinn & Tomita, 1986, p. 43). These indicators often are conceptualized as key consequences of psychological abuse and there is evidence that elders who have been psychologically abused experience a variety of negative consequences. For instance, a study of 842 non-institutionalized women ages 60 and

older found that women who experienced psychological abuse reported significantly more health problems compared to women who had not been psychologically abused (Fisher & Regan, 2006).

Financial abuse. Financial abuse, also referred to as material abuse, financial exploitation, and fiduciary abuse is a broad concept that encompasses a variety of behaviors (Heisler & Tewksbury, 1992; Sanchez, 1996; Wilber & Reynolds, 1996). In general, financial abuse is defined as the misappropriation or improper use of an elder's finances, assets, and/or property (NCEA, 2011a; Quinn & Tomita, 1986; Tatara, 1998; Wolf, 1996b). Sanchez (1996) argues for conceptualizing financial abuse as a continuum with characteristics of the abusive behavior determining where a particular act falls along the continuum. For instance, less serious offenses such as a caregiver keeping an elder's change after picking up the elder's prescription would be classified at one end of the continuum, while at the other extreme would be more serious offenses such as a trusted relative convincing a cognitively disabled elder to sign over his or her life savings. Based on the victim/offender relationship, Payne (2011) outlines four categories of financial abuse committed against the elderly: exploitation by primary contacts, nursing home theft by caregivers, fraud by secondary contacts, and property crimes committed by strangers (p. 84). These categories can be viewed as falling along a continuum as well, with the relationship between the victim and offender becoming more distant as one moves from one end of the continuum to the other.

Exploitation by primary contacts consists of financially abusive acts committed by individuals who have a close, personal or intimate relationship with the elderly victim (Payne, 2011). Primary contacts may include the elder's adult children, relatives, close

friends, caregiver, or partner/spouse. Exploitation is defined differently across studies, but several types of financial exploitation commonly committed by primary contacts have been identified in the literature. Eisenberg (1991) discusses four specific types including theft, coerced property transfers, property conversion, and conversion of public benefits or entitlement checks (p.68). Theft occurs when a primary contact steals an elder's possessions or money, while coerced property transfers involve a primary contact, typically a caregiver, compelling an elder to sign over his or her property to the primary contact in return for better care (Eisenberg, 1991). Property conversion refers to situations in which a primary contact abuses his or her legal privileges such as his or her power of attorney, to use the elder's property or assets to the primary contact's benefit. Finally, conversion of public benefits or entitlement checks refers to instances in which a primary contact requires an elder to pay for services that are typically not eligible under government benefit or entitlement programs (Eisenberg, 1991; Payne, 2011).

While primary contacts are those closest to an elder, the elderly are also vulnerable to financial abuse committed by more socially distant offenders. First, nursing home residents are at risk of becoming victims of theft. In a survey of 281 nursing home employees, Harris and Benson (1998) found that approximately 4% of employees surveyed reported stealing something from a patient and nearly 10% reported witnessing another employee stealing from a patient. Second, older adults also fall victim to fraud committed by secondary contacts. Secondary contacts are individuals who have limited contact with victims and include telemarketers, sales representatives, repairpersons, and other persons who do not have a personal relationship with the victim (Payne, 2011). Fraud by secondary contacts can manifest in a number of ways with research identifying

a plethora of different schemes, such as phony lottery contests, home repair scams, and fraudulent telemarketing operations, that specifically target the elderly (Payne, 2011). The final type of financial abuse identified by Payne (2011), other property crimes, draws attention to the fact that the elderly may become victims of traditional property offenses that are often committed by complete strangers. Other property crimes include pick pocketing, purse snatching, larceny, burglary, and motor vehicle theft (Payne, 2011).

Neglect. Neglect occurs when an individual who is responsible for caring for an elder fails or refuses to provide the elder with adequate care (Lachs & Pillemer, 1995; NCEA, 2011a; Payne, 2011; Tatara, 1998; Wolf, 1996b). In general, scholars differentiate between active and passive neglect. Active neglect is deliberate and intentional behavior that deprives an elder of basic necessities such as medical care, nourishment, shelter, and interaction (Johnson, 1995). In comparison, passive neglect is not the result of a conscious effort to harm the elder, but instead is linked to the caregiver's incompetence, stress, and/or lack of knowledge (Quinn & Tomita, 1986; Mitchell & Smyth, 1994). Another form of neglect is abandonment, which refers to situations in which a caregiver deserts a dependent elder (Tatara, 1998). For instance, the caregiver may drop off the elder at a nursing home or emergency room (Payne, 2011). Finally, self-neglect occurs when an elderly individual fails to take proper care of himself or herself, thereby negatively affecting his or her own physical health and/or safety (NCEA, 2011a; Payne & Gainey, 2005; Tatara, 1998). This form of neglect can include failure to seek medical attention, refusal to eat, poor hygiene, and failure to maintain a safe and sanitary living environment.

An Integrated Definition of Elder Abuse

Payne (2002) advocates for an "integrated definition of elder abuse" that would require researchers to recognize a full-range of victimization experiences, as well as include offenses committed by all types of offenders against older adults in the definition of elder abuse (Payne, 2002, p. 539). Employing this integrative framework and advancing a broad definition, Payne, Berg, and Byars (1999) define elder abuse as "any criminal, physical, or emotional harm or unethical taking advantage that negatively affects the physical, financial, or general well-being of an elderly person" (p.81). This definition allows for the consideration of a variety of different perpetrators including those known to the victim such as relatives, caregivers, and friends, as well as strangers. Further, Payne and colleagues' (1999) definition includes acts that are illegal, as well as those that result in harm, but are not necessarily criminal.

The current study will be based on this integrated definition of elder abuse, thus will use the terms elder victimization and elder abuse interchangeably. This definition does not specify the age of an elder abuse victim and a variety of different ages have been used in the prior literature. The current study will define older persons as those who are ages 60 and older. This particular age range has been used in a number of prior studies to define individuals as elderly and/or to classify a person as an "older victim" (Acierno et al., 2010; Amstadter et al., 2010; Choi, Kulick, & Mayer, 1999; Clarke et al., 1985; Cohen, Kluegel, & Land, 1981; Jackson & Hafemeister, 2011; Krienert & Walsh, 2010; Krienert, Walsh, & Turner, 2009; Pillemer, 1985; Tatara, 1998). Moreover, most state elder abuse statutes define the "elderly" as individuals ages 60 and older (see Hamp, 2003; Jogerst, Daly, Brinig, Dawson, Schmuch, & Ingram, 2003).

The Extent of Elder Abuse

It is well established that older individuals are generally less likely to be victimized compared to their younger counterparts. Much of the research that has identified low victimization rates among the elderly has relied on data drawn from the National Crime Victimization Survey (NCVS) or official data from the Federal Bureau of Investigation's (FBI) *Uniform Crime Report* (UCR), Supplementary Homicide Reports (SHR), and/or the National Incident Based Reporting System (NIBRS). The NCVS is based on self-reports from a nationally representative sample of over 40,000 American households and includes data on both reported and unreported victimizations drawn from over 70,000 individuals ages 12 and older (Truman, 2011). In comparison, the FBI's UCR, NIBRS, and SHRs are all derived from official data submitted by law enforcement agencies, thus only include statistics based on crimes that have been reported to the police.

Using NCVS data for the period between 1992 and 2002, Klaus (2005) found that persons ages 65 and older reported a nonfatal violent victimization rate that was one-twentieth that of individuals between the ages of 12 and 24 (p.1). With regard to property victimization for the same time period, households headed by elderly individuals were victimized at a rate that was approximately a quarter of that reported for households headed by individuals under 25 years old (Klaus, 2005). Consistent with findings from the NCVS, studies using data derived from official crime statistics like the FBI's SHRs and NIBRS indicate that the elderly are less likely to be victims of homicide and robbery when compared to younger victims (Bachman & Meloy, 2005; Faggiani & Owens, 1999; Fox & Levin, 1991). For instance, Fox and Levin (1991) established an elderly homicide rate of 4.49 per 100,000 individuals 65 years old or older compared to a homicide rate of

10.87 per 100,000 individuals between the ages of 12 and 64. Further, they found that individuals ages 65 and older were 60% less likely than younger individuals to be the victim of a robbery (Fox & Levin, 1991).

There are several problems associated with the use of NCVS and official crime data to determine the scope of elder abuse and it is likely that estimates derived from these data sources present a somewhat distorted picture of crime against the elderly. Payne (2002) identifies three specific issues related to NCVS and UCR data including non-reporting, exclusion of fraud cases, and exclusion of offenses occurring in institutional settings, specifically nursing homes (p. 541). The first and possibly most significant issue is related to underreporting. Elder abuse studies find that a considerable proportion of older victims do not report their victimization to law enforcement and/or social services, thus it is likely that a number of older victims may not disclose their victimization to NCVS interviewers. Multiple studies have attempted to determine the amount of underreporting in elder abuse cases and have produced varying estimates. For instance, Tatara (1998) estimates that one in five cases of elder abuse are reported, while Pillemer and Finkelhor (1988) suggest that only one in fourteen cases of elder abuse are reported.

The second issue with NCVS and FBI data is related to the ability of these data sources to capture the prevalence of fraud victimization. Fraud cases are always excluded in the UCR, whereas the NCVS has only recently begun to incorporate measures of fraud in the identity theft supplement to the main victimization survey. The incorporation of the identity theft supplement is an improvement to the NCVS, but does not tap into the broad range of fraud offenses that victims may experience. This is

especially problematic considering that research suggests that elders are at substantial risk of falling victim to fraud. Findings from the National Fraud Victim Study conducted by the American Association of Retired Persons (AARP) suggest that victims across all types of fraud schemes tended to be older individuals. In particular, findings indicated that victims of investment fraud, lottery fraud, and prescription drug fraud/identity theft were significantly older than members of the general population (Pak & Shadel, 2011, p. 25). For instance, the average age of investment fraud victims was 69 years old and the average age of lottery fraud victims was 72 years old. Finally, the NCVS does not survey individuals who reside in nursing homes, nor are many of the offenses that take place within this setting typically reported to police. Research has indicated that abuse, particularly financial abuse in the form of theft, is relatively common in nursing homes. As previously discussed, in Harris and Benson's (1998) study of 281 nursing home employees, they found that approximately 4% of employees reported that they had stolen something from a patient and nearly 10% indicated that they had observed another employee steal from a patient.

Focusing on a wider range of victimizations experienced by elders, elder abuse studies provide additional insight into the extent of elder victimization and yield victimization rates indicating that elder abuse is a significant problem for many older adults. In the first nationally representative study of elder abuse, Laumann, Leitsch, and Waite (2008) surveyed 3,005 non-institutionalized adults between the ages of 57 and 85 about their experiences with elder abuse committed by family members. They found that 9% of older adults reported being verbally mistreated, 3.5% reported experiencing financial mistreatment, and 0.2% reported being physically mistreated by a family

member (Laumann, Leitsch, & Waite, 2008). A later study by Acierno and colleagues (2010) employed survey data from a representative sample of over 5,700 community-dwelling individuals ages 60 and older to examine the extent of elder abuse and neglect committed by both known and stranger offenders. They found that 11.4% or approximately one out of every ten elders reported that they had experienced at least one type of abuse and/or potential neglect during the year preceding the survey (Acierno et al., 2010). Specifically, participants were asked to indicate whether anyone had physically and/or verbally mistreated them and/or sexually abused them during the past 12 months. Approximately 5% of participants reported that they had been emotionally mistreated, 1.6% reported being physically mistreated, and 0.6% reported being sexually abused in the 12 months preceding the survey. In addition, approximately 5% of participants indicated that they had been neglected by a caregiver in the 12 months prior to being surveyed. Finally, Acierno and colleagues (2010) found that 5.1% of the sample reported experiencing financial mistreatment committed by a family member during the past year.

It is likely that the estimates cited in the literature, whether based on official statistics or victim surveys, underestimate the true extent of elder victimization. As previously mentioned, there is evidence that many instances of elder abuse are never reported to law enforcement and/or adult protective services (APS) (Acierno et al., 2010; Pillemer & Finkelhor, 1988; Tatara, 1998). Elder abuse scholars often refer to the "iceberg theory" of elder abuse when discussing the prevalence and incidence estimates provided in the literature. The "iceberg theory" is not a formal theoretical statement or model, but simply suggests that only the most visible and severe cases of elder abuse

come to the attention of authorities like APS and the police (Tatara, 1998). Researchers have also argued that many elders may not report their victimization in community-based surveys due to feelings of embarrassment and fear (Payne & Gainey, 2009). Thus, it is likely that our understanding of the scope of elder victimization is not a complete picture and that even the best estimates are still only the tip of the proverbial iceberg.

Traditional Explanations for Elder Abuse

As elder abuse research has evolved, scholars have recognized that no single theoretical model or explanation can account for all forms of victimization experienced by older adults and that particular explanations may be more applicable to specific forms of victimization (Anetzberger, 2000; Ansello, 1996; Gordon & Brill, 2001; Payne, 2011; Wolf, 1996b). Thus, a variety of explanations have been developed and applied to the study of elder abuse. It is important to note that traditional elder abuse explanations primarily focus on characteristics of the elderly victim, offender, and situation, rather than structural variables that may influence the occurrence of abuse. Given this focus, the bulk of existing research has been based on a risk factor model rather than a solid theoretical foundation (Burnight & Mosqueda, 2011). This risk factor approach is not entirely surprising given that health care professionals were among the first to recognize and study this form of victimization. The existing body of research suggests that a number of factors are related to an increased risk of victimization for older adults, and researchers also have noted that particular forms of victimization are associated with specific risk factors (Anetzberger, 2000; Gordon & Brill, 2001; Payne, 2002).

Explanations based on risk factors are not synonymous with theories in that explanations only offer reasonable accounts of why a given behavior occurs, while theories outline a set of propositions that can be verified or falsified through empirical

testing (Payne, 2011). Despite the theoretical advances made by elder abuse scholars who have introduced theories such as social exchange theory, symbolic interactionism, intergenerational transmission of violence, and feminist theory, much of the literature still focuses on identifying key risk factors for victimization without explicitly linking these factors to a specific theoretical model. Although a variety of explanations have been explored by researchers, the subsequent sections will focus on five explanations that are commonly cited in the extant literature. These explanations include: (1) intraindividual explanations, (2) dependency, (3) stress, (4) social isolation, and (5) intergenerational transmission of violence. Many of these explanations emerged simultaneously during the same era (i.e. the 1980s) and as will be demonstrated below, many of the explanations overlap.

Intraindividual Explanations

Intraindividual explanations of elder abuse highlight attributes of the victim and/or offender that are associated with an increased risk of abuse (Payne, 2011; Payne & Gainey, 2009). This approach isolates the source of elder abuse and victimization as characteristics that originate from within the individual. Intraindividual explanations have also been referred to as intrapersonal theories (Harris, 1996) and specific intraindividual dynamics have been identified as risk factors for elder abuse (Pillemer, 1986). Explanations that emphasize the role that abuser psychopathology and victim vulnerability play in elder abuse victimization and offending can be considered to fall within the scope of intraindividual explanations. It is important to note that some scholars argue that offender characteristics are more central to our understanding of elder abuse, thus explanations should focus on the offender rather than the victim (Pillemer,

1985; Pillemer & Finkelhor, 1989). Anetzberger (2000), however, highlights the victim and offender dyad that is present in all cases of elder abuse and argues that explanations must consider how victim characteristics may contribute to increased victimization risk. Therefore, the following discussion will focus on the key characteristics of victims and offenders that have been found to be associated with elder abuse in the existing literature, including psychological and emotional problems, alcohol abuse, and cognitive and functional impairments (Bonnie & Wallace, 2003; Payne, 2011).

Victim/offender psychological and emotional problems. With regard to offenders, researchers have hypothesized that mental health issues may reduce the individual's ability to cope with the frustration he or she encounters when interacting and caring for a low-functioning elder (Gordon & Brill, 2001). In some instances, this diminished ability to cope may lead the individual to be unable to manage his or her emotions and/or behavior, which scholars have suggested may result in elder abuse. Several studies have found a history of mental illness and/or emotional problems (i.e. low self-esteem, depression, etc.) among elder abuse perpetrators (Godkin, Wolf, & Pillemer, 1989; Pillemer, 1986; Pillemer & Finkelhor, 1989). Using data from 59 abused and 49 non-abused elders, Godkin and colleagues (1989) found that abusive caregivers were significantly more likely to be characterized by mental or emotional problems compared to nonabusive caregivers. In a study comparing 42 abused elders to 42 non-abused elders, Pillemer (1986) found similar results with approximately 36% of elder abuse victims reporting that their abuser had been hospitalized in a psychiatric facility compared to 7% of relatives of non-abused elders.

Research also indicates that elder abuse offenders often suffer from high levels of depression (Coyne, Reichman, & Berbig, 1993; Reay & Browne, 2001). Several studies using a case-control design have established that abusive caregivers exhibit higher levels of depression compared to nonabusive caregivers (Coyne, Reichman, & Berbig, 1993; Reay & Browne, 2001). Examining the factors that predict elder abuse among families caring for Alzheimer's patients, Paveza and colleagues (1992) found that caregiver depression was significantly associated with an increased risk of abuse. Specifically, the likelihood of abuse was three times higher in cases in which caregivers scored above a cutoff of 16 on the Center for Epidemiological Studies – Depression Scale (Paveza et al., 1992, p. 495).

Some researchers have also considered how elderly victims' mental and emotional states may contribute to increased victimization risk. Godkin, Wolf, and Pillemer (1989) found that elder abuse victims were significantly more likely to report poor mental and emotional health compared to non-abused controls. They suggest that the presence of mental and emotional problems among victims and abusers precipitates interpersonal conflict, which may escalate into an abusive situation. Using data from a sample of approximately 3,200 community-dwelling elders in the Netherlands, Comijs and colleagues (1998) explored the relationship between a range of different factors and multiple forms of elder abuse. They found that the presence of depressive symptoms, as opposed to no depressive symptoms, was significantly associated with experiencing physical aggression and financial mistreatment, but not with chronic verbal aggression (Comijs et al., 1998). Jackson and Hafemeister (2011) reported similar results in their study based on victim and APS worker interviews, as well as official APS data.

Specifically, they found that for every one-unit increase on a scale assessing victim's overall mental health (higher scores indicating more mental health problems), the odds of being a victim of physical abuse increased by 31% (Jackson & Hafemeister, 2011, p. 750). In comparison to physical abuse, they found that mental health problems were negatively associated with neglect indicating that individuals with more mental health issues were at a lower risk of being the victim of neglect compared to those with fewer mental health issues.

Victim/offender impairment. This type of intraindividual explanation is also referred to as impairment theory and proposes that individuals with physical and/or psychological impairments are at a higher risk of engaging in abusive behavior and/or being victimized (Fulmer, Street, & Carr, 1984). As previously discussed, research has demonstrated the prevalence of mental illness and other psychological problems among elder abusers suggesting that many offenders are characterized by varying degrees of mental impairment. However, much of the research that examines the relationship between impairment and elder abuse concentrates on the victim's functional and/or cognitive impairments as opposed to offender impairments.

When examining *functional impairment*, studies generally include measures that tap into the level of assistance elders require with activities of daily living (ADL) and instrumental activities of daily living (IADL). Activities of daily living include behaviors such as bathing, eating, and dressing, while IADL refer to behaviors such as grocery shopping, household maintenance, transportation, and meal preparation (Comijs et al., 1998; Pillemer, 1986). According to data from the U.S. Census Bureau, approximately 16% of community dwelling U.S. residents ages 65 and older required assistance with

one or more ADLs or IADLs during 2010 (Brault, 2012). Explanations that focus on the role of physical and functional impairments in elder abuse cases emphasize the impaired elder's diminished capacity for self-defense and the barriers he or she faces when seeking help from outside agencies (Lachs & Pillemer, 1995). The studies that examine the relationship between this form of impairment and elder abuse yield relatively mixed findings. A number of studies indicate that abused elders do not exhibit higher levels of functional and/or physical impairment when compared to non-abused elders (Phillips, 1983; Pillemer, 1985), whereas other studies suggest that functional and physical impairment are risk factors for abuse (Godkin, Wolf, & Pillemer, 1989; Lachs et al., 1997).

As previously discussed, researchers have recognized the need to distinguish among types of elder abuse when testing potential explanations, suggesting that different explanatory factors may be more relevant to a given form of abuse. Thus, the contradictory findings with regard to these variables may be related to the way elder abuse is measured with many studies creating a composite measure of abuse that combines all forms of abuse into a dichotomous outcome reflecting whether the individual experienced any form of elder abuse. Studies that differentiate among types of elder mistreatment find that functional impairment is related to particular types of elder abuse (Comijs et al., 1998; Jackson & Hafemeister, 2011). For instance, findings from the National Elder Mistreatment Study indicated that the need for assistance with ADL was associated with a higher risk of emotional mistreatment, as well as a higher likelihood of financial mistreatment by family members (Acierno et al., 2010). In their nationally representative study of elder abuse committed by family members, Laumann,

Leitsch, and Waite (2008) found that the odds of being verbally abused were approximately 13% higher for elders who reported any physical impairments (i.e. ADL impairment, mobility impairment, vision and/or hearing problems, etc.) compared to those who reported no physical impairments. Yet, physical impairment was not significantly associated with financial abuse committed by family members (Laumann, Leitsch, & Waite, 2008).

In comparison to physical impairments, *cognitive impairments* include aging-related illnesses like Alzheimer's disease and other forms of dementia. Various studies suggest that elder abuse is more prevalent among elderly individuals with dementia (Coyne, Reichman, & Berbig, 1993; Paveza et al., 1992; Pillemer & Suitor, 1992). Comparing their findings to those of Pillemer and Finkelhor (1988), Paveza and colleagues (1992) estimate that elders with Alzheimer's disease experience physical abuse at a rate 2.25 times that of cognitively intact elders residing in the community (p.497).

Scholars suggest that an elder's aggressive behavior resulting from dementia may provoke caregivers to react abusively (Bonnie & Wallace, 2003; Lachs & Pillemer, 1995; Pillemer & Suitor, 1992). It is also reasonable to propose that offenders may abuse and take advantage of cognitively impaired elders because the elder's vulnerable mental state may reduce the likelihood that he or she will report abuse. In general, research indicates that cognitive impairments are associated with an increased risk of elder abuse (Choi, Kulick, & Mayer, 1999; Godkin, Wolf, & Pillemer, 1989; Lachs et al., 1997). Yet, like functional and physical impairment, studies that differentiate among types of elder abuse find that cognitive impairment is a more important predictor of specific forms of abuse.

For example, Jackson and Hafemeister (2011) established that elders characterized by confusion and/or dementia were at a greater risk of being victims of neglect compared to those without confusion or dementia. On the other hand, individuals who did not exhibit signs of confusion and/or dementia were more likely to be victims of financial exploitation, as well as physical abuse compared to those who were confused and/or had dementia (Jackson & Hafemeister, 2011).

Offender alcohol abuse. Another key intraindividual characteristic associated with elder abuse is alcohol abuse by offenders (Anetzberger, Korbin, & Austin, 1994; Reay & Browne, 2001). Researchers have not fully explicated the link between alcohol abuse and elder abuse, but have suggested that alcohol may serve to reduce offenders' inhibitions against abusive behavior or may simply act as a convenient excuse for socially unacceptable behavior (Anetzberger, Korbin, & Austin, 1994; Pillemer, 1986). Alcohol abuse by elderly victims rarely has been explored in the elder abuse literature, consequently little is known about how elderly victims' alcohol consumption affects their victimization risk.

In comparison, multiple studies employing comparison groups have found that elder abusers were more likely to abuse alcohol when compared to non-abusive control subjects (Godkin, Wolf, & Pillemer, 1989; Pillemer, 1986). Anetzberger and colleagues (1994) investigated the role of alcoholism in their study of elder abuse occurring in households in which adult children provide care to their elderly parents. They compared 23 caregivers identified by service agencies as physically abusive to 39 non-abusive caregivers and discovered that abusers were two times more likely to have consumed alcohol during the two years preceding the interview. Further, physically abusive adult

children were significantly more likely to report that someone had told them that they had a drinking problem compared to non-abusive control caregivers (Anetzberger, Korbin, & Austin, 1994). There is also evidence to suggest that alcohol may play a more important role in particular types of elder abuse. Reay and Browne (2001) examined the characteristics of 19 individuals who cared for an elderly relative and who had been either physically abusive or had neglected the elder. They found that a greater percentage of physically abusive caregivers (77%) abused alcohol when compared to neglectful caregivers (10%) (Reay & Browne, 2001, p. 58).

Dependency

Dependency is cited frequently in the literature as a risk factor for elder abuse. Explanations based on dependency are classified apart from intraindividual explanations because dependency explanations are concerned with accounting for how abuse arises within the context of a caregiving relationship. The way scholars have defined dependency varies across studies and many studies employ proxy measures of dependency by assessing an elder's need for ADL and IADL assistance due to impairments. Consequently, the literature examining dependency overlaps considerably with that exploring the relationship between impairments and elder abuse. Pillemer (1985) defines dependency as "requiring assistance from another person or persons to continue living in the community (p.147)." Early studies focused exclusively on the *victim's dependency* upon a caregiver and emphasized the association between increased dependence and elder abuse.

Focusing on the dependence of elderly victims on familial caregivers, Steinmetz (1988) discusses "generationally inverse families" in which the adult child assumes the

adult role by providing care to his or her aging parent (p. 47-48). Elders can be dependent upon their caregiver for a variety of functions and needs. Steinmetz (1988) outlines six categories of dependency: household dependency, personal grooming/health dependency, financial dependency, mobility dependency, social/emotional dependency, and mental health dependency. An elder's reliance on others for care in these various areas may leave the elder vulnerable to abuse in that an abuser may use this dependence to control and manipulate the elder. Further, as will be discussed in a subsequent section examining stress explanations, providing care for a dependent elder often results in stress, which researchers have suggested may lead a caregiver to behave abusively toward an elderly care recipient. As previously discussed, the literature is equivocal regarding the relationship between victims' functional/physical impairments and elder abuse, but rather consistently demonstrates that cognitively impaired elders are at a greater risk of being abused compared to cognitively intact elders. The findings with regard to impairment provide some support for including victim dependency as a risk factor for elder abuse.

During the 1980s, researchers began to consider the *offender's dependence* on his or her elderly victim. Using data derived from interviews with 42 elderly victims of physical abuse and 42 non-abused elderly control subjects, Pillemer (1985) found that abusers were significantly more dependent on their elderly victim for housing, household repairs, financial assistance, and transportation than non-abusive comparison relatives. Pillemer (1985) used exchange theory to account for the relationship between offender dependency and elder abuse. Rooted in economics, exchange theory asserts that individuals seek to maximize the rewards (resources, positive interactions, etc.) while minimizing the costs (removal of resources, punishment, etc.) within their social

relationships (Harris, 1999). Social interactions that are balanced involve a mutual exchange of rewards and costs between all parties, whereas unbalanced interactions are characterized by an uneven exchange of costs and rewards (Ansello, 1996; Harris, 1999). In unbalanced interactions, the party who has fewer resources is viewed as more dependent upon the exchange, thus is perceived as having less power in the relationship (Pillemer, 1985). In an unbalanced relationship with an elder, the dependent caregiver or relative may experience feelings of powerlessness and may employ violence as a means of reasserting his or her power in the relationship. Several studies have found similar results with the offender's dependency being significantly associated with elder abuse (Godkin, Wolf, & Pillemer, 1989; Pillemer & Finkelhor, 1989). Pillemer's (1985) study and subsequent research has indicated that the relationship between dependency and elder abuse is complex with evidence indicating that both victim and offender dependency play key roles in elder abuse.

Stress

The *caregiver stress or burden perspective*, also referred to as the situational model, emerged as one of the earliest explanations of elder abuse and links abuse to the demands of caring for an elder (Gordon & Brill, 2001; Greenberg, McKibben, & Raymond, 1990; Phillips, 1986). This perspective merges explanations focusing on dependency and victim impairment by drawing attention to the stress that accompanies providing care to an impaired, dependent elder. According to this perspective, overburdened caregivers may respond to the stress associated with caring for a low-functioning elder by acting in a harmful or abusive manner. Stress can originate from internal, as well as external sources. Internal stressors include conditions that emanate

from within an individual such as anxiety, low self-esteem, and personal illness (Fulmer, Street, & Carr, 1984; Harris, 1996; Payne, 2011). External stressors come from outside of the individual and can include financial problems, unemployment, death of a relative/friend, household member illness, and divorce (Godkin, Wolf, & Pillemer, 1989; Harris, 1996; Pillemer, 1986; Vinton, 1991). There is often a dynamic interplay between internal and external stressors with each reciprocally affecting the other (Gainey & Payne, 2006; Payne, 2011). Griffin and Williams (1992) outline a number of different sources of stress that caregivers may encounter: (1) physical, financial, and emotional problems associated with caring for a disabled/impaired elder, (2) the limited and sporadic assistance provided by social service/community programs, and (3) the sacrifice of the caregiver's personal time that is often required when tending to the elder's needs (p. 25).

The research testing the caregiver stress explanation has provided mixed support for this perspective (Gainey & Payne, 2006; Lee, 2009; Pillemer, 1985; Williamson & Shaffer, 2001; Yan & Kwon, 2010). Pillemer (1986) found that households characterized by abuse were significantly more likely to report experiencing three stressful events: an individual moving into the household, an individual leaving the household, and the arrest of a household member. It is important to note, that these three stressful life events were often the direct result of the abuser's behavior and the abusive situation (Pillemer, 1986). That is, abusive households were more likely to experience these stressful life events because these events are a product of living in an environment characterized by abuse. In comparison, there were no significant differences between the abusive and non-abusive

households with regard to their experiences with other types of stressful life events, such as illness and financial problems (Pillemer, 1986).

In a more recent study, Gainey and Payne (2006) evaluated caregiver burden as a risk factor in their study of 751 APS elder abuse cases in Virginia. Specifically, they were interested in determining whether burden or stress was more evident in cases involving elders with greater impairment, namely Alzheimer's and dementia cases. The results indicated that burden exists across all caregiving situations with no significant differences in levels of burden experienced by caregivers of elders with dementia and caregivers of elders without cognitive impairments (Gainey & Payne, 2006). Their findings coupled with other scholars who have suggested that stress explanations are overly simplistic (Korbin, Anetzberger, & Eckert, 1989) indicate that stress is not the central cause of elder abuse, but instead is only a single risk factor contributing to a much more complex process involving multiple risk factors.

Social Isolation

Another key risk factor for elder abuse is social isolation. Research has indicated that elder abuse is more likely to occur when elders are not "embedded in strong social networks" (Bonnie & Wallace, 2003, p. 93). Specifically, scholars have suggested that increased social isolation is likely to reduce the chance that abuse will be discovered, thus decreasing the likelihood of intervention (Lachs & Pillemer, 1995; Pillemer, 1986). Several studies have found support for the relationship between isolation and an increased risk of abuse. For instance, Phillips (1983) found that elder abuse victims reported higher levels of social isolation than non-abused elders. In a more recent study based on a nationally representative sample, Acierno and colleagues (2010) found that

low social support was significantly related to physical, emotional, and sexual abuse, as well as neglect. Specifically, the odds of elders who reported low levels of social support experiencing any form of abuse were over three times higher than the odds of elders who reported high levels of social support (Acierno et al., 2010, p. 295).

Comparing victimization risk factors for older and younger adults, Vandecar-Burdin and Payne (2010) found that the only factor that significantly predicted victimization for the elderly was whether they socialized with family and friends. Specifically, they found that social isolation was a risk factor for victimization for older individuals. Elders who did not socialize with friends and family on a regular basis were more likely to report that they had been victimized compared to elders who regularly socialized with their friends and family (Vandecar-Burdin & Payne, 2010). They found that social isolation was not significantly associated with an increased risk of victimization for individuals under the age of 60.

In addition to low social support and isolation, studies that have included measures that reflect the elder's living arrangement indicate that elders who live with others are at a greater risk of being abused (Lachs et al., 1997; Paveza et al., 1992; Pillemer & Finkelhor, 1988; Pillemer & Suitor, 1992). Scholars have proposed that shared dwellings provide household members with more opportunities for contact with one another, thus simultaneously increasing the opportunities for interpersonal conflict and victimization (Bonnie & Wallace, 2003). In line with this assertion, Lachs and colleagues (1997) found that living alone was a protective factor for older adults. Abused elders were more likely to share a residence with another individual, yet also reported significantly fewer social ties. It is safe to suggest that a shared living arrangement does

not automatically translate into higher levels of social integration, nor does a shared household indicate that the elder has a healthy, nonabusive relationship with other individuals in his or her home. Abusive household members may purposely isolate elderly victims in order to prevent reporting and intervention.

It is important to note that isolation may actually be an outcome of abuse rather than a cause (Baron & Welty, 1996; Pillemer, 1986). Cross-sectional studies are not able to establish temporal ordering of variables and it may be that studies employing this design are tapping into elderly victims' self-protective behavior following victimization. Using longitudinal data from a sample of 2,812 non-institutionalized adults over 65 years old, Lachs and colleagues (1997) found that abused elders reported fewer social ties compared to non-abused elders. It is likely that the relationship between social isolation and abuse is reciprocal with isolation contributing to abuse and vice versa.

Intergenerational Transmission of Violence

The intergenerational transmission of violence theory, also referred to as the cycle of violence, is rooted in the broader social learning theoretical perspective and proposes that individuals learn to be violent in the context of the family (Pillemer, 1986). According to this perspective, children who are abused by their parents and/or witness domestic violence learn that violence is an appropriate response to conflict. As a result, these children are likely to grow up to use violence in their interpersonal and familial relationships (Pillemer, 1986). This approach typically has been applied to child and spouse abuse.

Extending this perspective to elder abuse, scholars have hypothesized that abused children grow up to abuse their elderly parents. Pillemer (1986) notes that the application

of the cycle of violence to elder abuse not only asserts a process involving imitation, but also entails retaliation. Although this perspective seems to be a promising approach to understanding elder abuse, very few studies have tested this explanation and the studies that have examined the intergenerational transmission of violence have found little empirical evidence of a cycle of violence among elder abusers (Godkin, Wolf, & Pillemer, 1989; Korbin, Anetzberger, & Austin, 1995; Pillemer, 1986). Comparing 23 elder abusers and 21 child abusers, Korbin and colleagues (1995) found that child abusers were significantly more likely to report experiencing severe violence as children compared to elder abusers. They conclude that the intergenerational transmission of violence is more salient when attempting to explain child abuse rather than elder abuse. A significant weakness of this perspective is the fact that many abused children do not grow up to be violent, much less elder abusers (Korbin, Anetzberger, & Austin, 1995; Tomita, 1990).

In sum, the elder abuse literature is characterized by attempts to identify the factors that place older adults at a greater risk of being victimized. Among the main factors and explanations that have been explored in the literature are intraindividual explanations, dependency, stress, social isolation, and intergenerational transmission of violence. What is missing from this body of research is a coherent theoretical framework to organize these risk factors into a testable model complete with propositions that can be subject to empirical verification.

Theoretical Framework for the Current Study

Although there is ample evidence that the elderly are victims of crime, criminological theories have rarely been applied to the study of elder abuse. Osgood (1998) highlights that many of the topics criminologists study have been examined by

scholars in related disciplines and argues that one way to advance criminology as a discipline is to "steal ideas from our friends" (p. 1). Given that elder abuse crosses disciplinary boundaries, it is reasonable to suggest that insights from criminology could prove to be useful and the integration of elder abuse explanations and criminological theory potentially could expand our understanding of this phenomenon. Falling under the broader scope of opportunity theories, lifestyles/routine activities theory (L/RAT) is the predominant theoretical framework applied in studies of victimization (Cohen & Felson, 1979; Cohen, Kluegel, & Land, 1981; Kennedy & Forde, 1990; Lynch & Cantor, 1992; Massey, Krohn, & Bonati, 1989; Messner & Tardiff, 1985; Miethe, Stafford, & Long, 1987; Miethe, Stafford, & Sloane, 1990; Sampson, 1987; Sampson & Wooldredge, 1987).

Researchers have begun to use the L/RAT framework to examine victimization risk among older adults. Specifically, this framework has been applied to homicide cases involving elderly victims (Fox & Levin, 1991; Kennedy & Silverman, 1990; Nelsen & Huff-Corzine, 1998; Roberts & Willits, 2012), elder abuse occurring in nursing homes (Harris, 1999; Payne & Gainey, 2006), and street offenses (i.e. robbery, rape, assault, and theft) committed against the elderly (Clarke, Ekbolm, Hough, & Mayhew, 1985). Researchers have also suggested that L/RAT is a promising approach to understanding financial exploitation of the elderly (see Setterlund et al., 2007). Further, L/RAT research often investigates the relationship between age, routine activities, and victimization by examining the relationship between L/RAT factors and victimization for different age groups (Cohen, Kluegel, & Land, 1981; Kennedy & Forde, 1990; Messner & Tardiff, 1985; Miethe, Stafford, & Sloane, 1987).

The current chapter will provide a background and detailed description of the L/RAT framework. Routine activities theory and lifestyle-exposure theory will be discussed separately followed by a description of how the two theories have been integrated in order to create a multi-level theoretical framework. Next, the general findings from empirical tests of the L/RAT framework will be briefly discussed. Following the general discussion of the L/RAT perspective and empirical findings, the focus will shift to how the L/RAT framework has been applied to the study of elder victimization, as well as how the findings from the elder abuse literature can be situated within the conceptual framework of L/RAT. More specifically, this final section will highlight the L/RAT propositions that are related to the effects of age on victimization and the empirical evidence concerning these propositions.

Routine Activities Theory

Cohen and Felson (1979) originally developed routine activities theory to account for macro-level crime trends. The theory was designed to explain why the crime rate in the United States increased during the 1970s, a period of improving economic and social conditions. Cohen and Felson (1979) argue that broader changes in the social structure affect routine activity patterns, which ultimately influence patterns of victimization by increasing or decreasing the availability of criminal opportunities. They define routine activities as "any recurrent and prevalent activities which provide for basic population and individual needs, whatever their biological or cultural origins" (Cohen & Felson, 1979, p. 593).

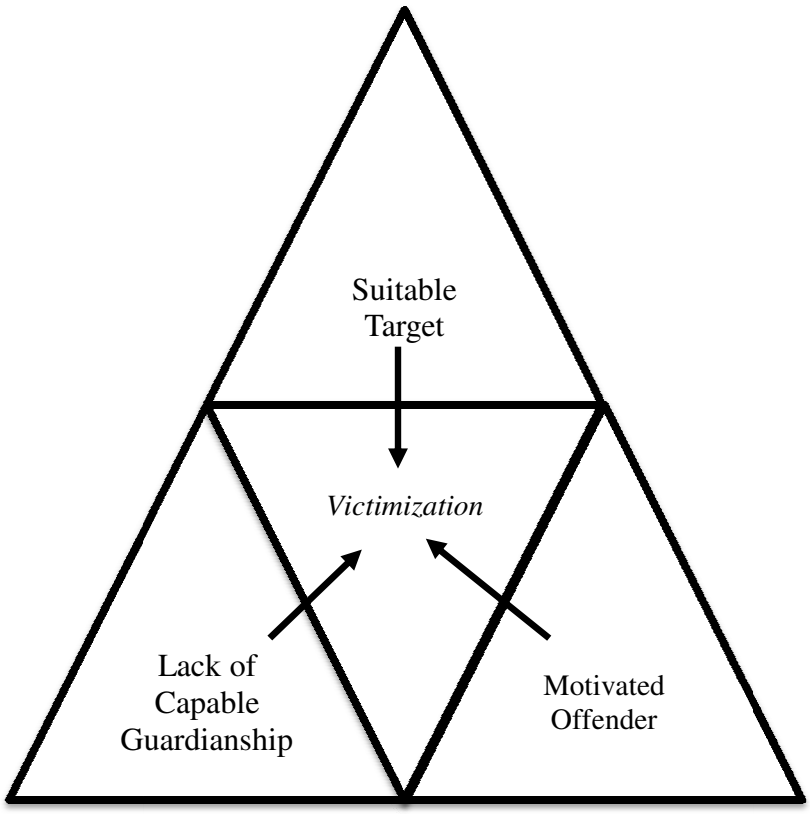
Since the 1960s, routine activities have progressively shifted away from the household with significant increases in the number of females enrolled in college and

growing rates of female participation in the work force, as well as marked growth in the number of single-headed households (Cohen & Felson, 1979). Additionally, improvements in technology during this period led to the production of smaller, portable consumer goods such as radios and televisions. According to routine activities theory, such changes in American society led to increased opportunities for offenders to act on their criminal inclinations, thereby corresponding to an increase in the crime rate. Moreover, Cohen and Felson (1979) argue that these changes in conventional routine activities affect patterns in criminal behavior through influencing three essential elements of crime: (1) a motivated offender, (2) a suitable target, and (3) the absence of capable guardianship (p. 589). Specifically, they assert that crime is likely to occur when a motivated offender and suitable target intersect in time and space in the absence of capable guardianship (Cohen & Felson, 1979). See figure 2.1 for a conceptual model of routine activities theory.

The first element, *the motivated offender*, includes individuals who have the propensity to commit an illegal act. Unlike most theories of crime, routine activities theory moves the focus away from the offender to the victim or target and guardianship (Felson, 2001). Routine activities theory assumes offender motivation is constant, thus does not seek to explain why offenders are motivated to commit crime. Instead, the focus is upon the offender's opportunity to act on his or her motivation (Cohen & Felson, 1979; Felson, 2001). Given the lack of emphasis on offender motivation, empirical tests of routine activities may not directly assess the presence of motivated offenders.

Cohen and colleagues (1981), however, extended and refined routine activities theory to include the concept of *proximity*, which provides an opportunity to tap into the

Figure 2.1 Routine Activities Theory Conceptual Model



motivated offender concept. Proximity refers to the physical space between a potential victim and locations where large numbers of motivated offenders reside or visit (Cohen, Kluegal, & Land, 1981, p. 507). Cohen and colleagues (1981) argue that individuals who reside in neighborhoods where a high concentration of potential offenders also reside are more likely to be victimized. Proximity to motivated offenders can be measured both objectively and subjectively (Massey, Krohn, & Bonati, 1989).

Massey, Krohn, and Bonati (1989) suggest that the official crime rate of a given census tract is one way to objectively measure exposure to motivated offenders. Subjective measures of proximity to motivated offenders consist of individuals' perceptions of the presence of offenders in their community, the perceived amount of

crime in their immediate environment, and their personal, as well as vicarious experiences with criminal victimization (Massey, Krohn, & Bonati, 1989, p. 385). Potential and actual victims' perceptions of crime and offenders in their environment may reflect their likelihood of being victimized, as well as influence the precautionary measures they take in order to avoid being victimized.

As emphasized by routine activities theory, the presence of a suitable target is a key element to any criminal offense. A *suitable target* is an individual or a property that an offender desires to possess or to control (Felson, 2001). Target suitability is based on the target's attractiveness and can be linked to a target's objective and/or symbolic value, visibility, accessibility, and other physical characteristics of the target (e.g. a victim's ability to defend him or herself or the design of an object in terms of size and weight that inhibits theft) (Cohen & Felson, 1979, p. 591). In terms of property, suitable targets include items that are small and easily transported, but still valuable. For instance, an iPad or a smart phone is much more appealing to a potential burglar in terms of suitability and attractiveness compared to larger, bulky items like a stove or refrigerator. These items, although expensive, are much more difficult to remove from a home. With regard to individuals as targets, particular attributes of a person may make him or her more attractive to motivated offenders. Potential offenders may view individuals who wear flashy, expensive clothing or conspicuously display their cash and/or credit cards as suitable targets.

The final element identified in routine activities theory, *capable guardianship,* is also related to an object or person's suitability as a target. Specifically, targets that are lacking capable guardianship are argued to be more attractive to offenders (Cohen &

Felson, 1979). Conversely, potential targets that are more heavily guarded are believed to be less attractive to potential offenders, thus less likely to be victimized. Guardianship can manifest in several different ways. Individuals can act as capable guardians for themselves and/or for their property. With regard to property, an individual can be a capable guardian by being present at one's home or in close proximity to his or her personal possessions. In terms of acting as a guardian for oneself, an individual who is physically fit is viewed as being more capable of serving as his or her own guardian. Guardianship can also manifest in physical characteristics of a location. For instance, alarms, fences, and guard dogs can act as physical guardianship.

Social guardians are another important aspect of guardianship and include other individuals such as friends, relatives, neighbors, and law enforcement officers who may intervene on a target's behalf (Felson, 2001). Common measures of social guardianship include the number of individuals living within a person's household and an individual's level of integration in his or her social networks. It is important to note that the same individuals, friends and family, who are typically classified as capable guardians could also be considered motivated offenders. For instance, between 2001 and 2010 approximately half of the victims of violent crime included in the NCVS were victimized by a non-stranger offender (Truman, 2011).

The absence of any one of the aforementioned three elements reduces the chances that victimization will occur (Cohen & Felson, 1979). Routine activities can inhibit, as well as facilitate victimization by affecting the convergence of motivated offenders, suitable targets, and capable guardians. The original domain of routine activities theory was restricted to "direct-contact predatory" offenses, but subsequent applications of

routine activities theory have led to the application of this theoretical framework to a wide variety of crimes such as drug dealing and fraud (Felson, 2001). Focusing on increases in criminal activity, the theory posits that shifts in routine activities can increase the presence of suitable targets and decrease capable guardianship, thus providing motivated offenders with more opportunities to victimize vulnerable targets (Cohen & Felson, 1979; Meier & Meithe, 1993). Cohen and Felson (1979) performed the first test of routine activities theory by examining the relationship between activities away from the household and crime rates. Their measure of non-household activity, "the household activity ratio," was created by adding the number of married female workers and the number of unmarried households and then dividing the sum by the total number of U.S. households (Cohen & Felson, 1979, p. 600-601). Cohen and Felson (1979) found that the household activity ratio was positively and consistently related to homicide, forcible rape, aggravated assault, robbery, and burglary rates. That is, more activity away from the household was associated with higher crime rates, which was consistent with their predictions.

Lifestyle-Exposure Theory

Lifestyle-exposure theory is a micro-level theory that is closely related to routine activities theory. According to lifestyle-exposure theory, differences in the lifestyles of victims are primarily responsible for variation in victimization risk across demographic groups (Hindelang, Gottfredson, & Garofalo, 1978). Indicating the similarities between routine activities theory and lifestyle-exposure theory, Hindelang, Gottfredson, and Garofalo (1978) define lifestyle as "routine daily activities both vocational and leisure activities" (p. 241). The everyday behaviors that make up an individual's lifestyle may

include attending school, going to work, maintaining one's household, shopping, and socializing with friends and family. According to Hindelang and colleagues (1978), a number of different factors contribute to the type of lifestyle an individual leads.

More specifically, lifestyle-exposure theory suggests that lifestyle differences are the product of individuals' adaptations to structural constraints and role expectations, which are both influenced by an individual's demographic characteristics (i.e. age, sex, race, income, marital status, occupation, and education level) (Hindelang, Gottfredson, & Garofalo, 1978). Hindelang and colleagues (1978) define role expectations as cultural norms linked to achieved, as well as ascribed statuses (p. 242). Role expectations specify what is expected and accepted behavior for particular statuses, thus restricting an individual's choices for action (Meier & Meithe, 1993). The role expectations that have the most significant impact on lifestyle are those that are related to an individual's central or primary status, because these expectations have a broad impact on the way in which the individual behaves (Hindelang, Gottfredson, & Garofalo, 1978).

For instance, chronological age exerts a considerable influence on the types of roles an individual fills, as well as how society expects him or her to behave (Hindelang, Gottfredson, & Garofalo, 1978). Children are expected to spend significant proportions of their time at home in the company of family members, while adolescents are expected to transition away from the household of origin with more time spent in the company of peers within the context of school and extracurricular activities. Young adults are similar to adolescents in that it is expected that more of their time will be spent away from their household of origin possibly engaging in school, occupational, and/or social activities. In comparison, as individuals progress into middle and late adulthood, the home is once

again expected to occupy a central role with the majority of an individual's time being spent rearing children, taking care of the household, and interacting with a spouse or partner.

In addition to role expectations, structural constraints based in macro-level institutions, such as the family and economy, further limit individual behavior. Structural constraints are barriers or circumstances that restrict an individual's behaviors by limiting the range of options that are available to the individual (Hindelang, Gottfredson, & Garofalo, 1978). Economic constraints are a common example of a form of structural constraint. Where one fits within the economy influences multiple aspects of an individual's lifestyle. In comparison to low-income individuals, individuals with ample financial resources have more options available to choose from with regard to their education, occupation, residence, and transportation, as well as how they spend their free time (Hindelang, Gottfredson, & Garofalo, 1978).

Essentially, Hindelang and colleagues (1978) argue that one's demographic characteristics influence his or her role expectations and the structural constraints that the individual encounters in his or her everyday life. It is important to note that the relationship between role expectations and structural constraints is most likely reciprocal (Hindelang, Gottfredson, & Garofalo, 1978). In other words, shifts in role expectations can result in changes in structural constraints and vice versa. For instance, a major shift in the economy, such as a recession, could have the potential to shift role expectations related to occupational roles and goals. Reductions in the number of jobs available may diminish the social expectation that individuals will gain employment immediately upon completing their education.

As previously discussed, lifestyle-exposure theory proposes that variations in lifestyle are the result of adaptations to structural constraints and role expectations. Adaptations permit individuals to navigate within the boundaries set forth by role expectations and structural constraints, while maintaining some individuality and sense of agency (Hindelang, Gottfredson, & Garofalo, 1978). Individual adaptations give rise to regular, predictable behavioral patterns, which comprise an individual's lifestyle (Hindelang, Gottfredson, & Garofalo, 1978). Adaptations to structural constraints and role expectations influence individuals' routine activities and result in individuals associating with those who share similar lifestyles. According to lifestyle-exposure theory, particular lifestyles are related to higher victimization risk in that these lifestyles involve increased exposure to risky situations and offenders (Hindelang, Gottfredson, & Garofalo, 1978; Meier & Meithe, 1993).

Exposure refers to the level of contact an individual has with risky individuals and situations (Hindelang, Gottfredson, & Garofalo, 1978). The concept of exposure has been measured in a number of different ways throughout the literature; however, researchers have frequently used items that tap into an individual's major daily activity to reflect a person's level of exposure to motivated offenders (Meier & Miethe, 1993). Measures may include the nature of the main activities an individual is involved in such as work or school, as well as the amount of time spent in such activities (i.e. whether attending school or working full- or part-time). Other measures of exposure could include items that gauge an individual's involvement in risky behaviors or activities such as drinking, offending, and drug use. These behaviors are expected to bring individuals into increased contact with potential offenders who also are likely to be engaged in these

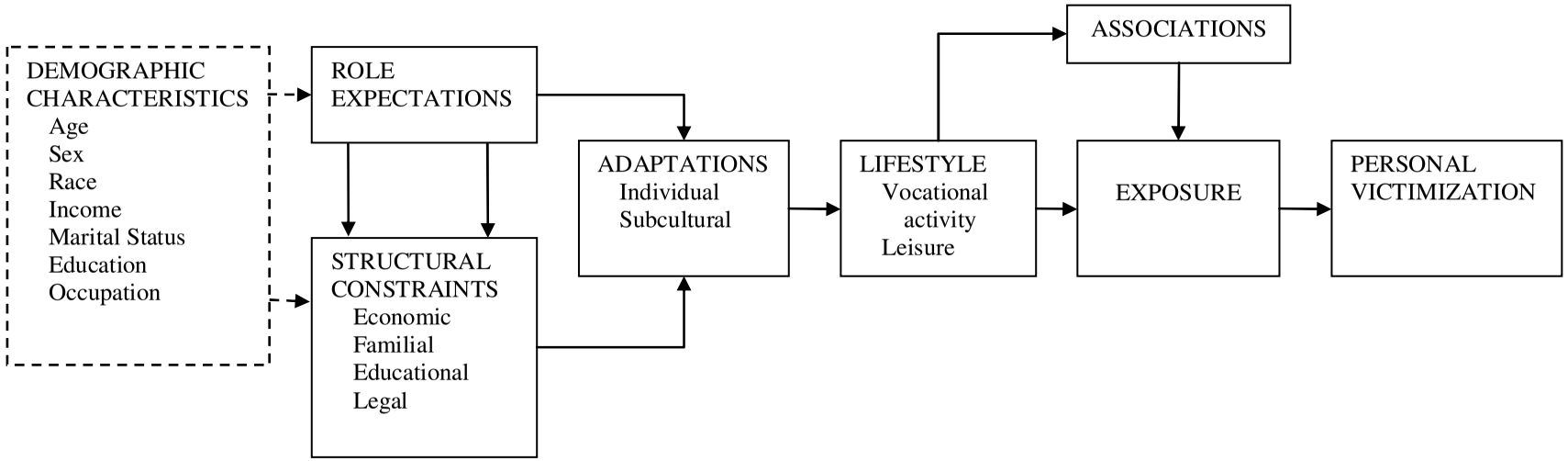
types of behaviors. Refer to figure 2.2 for a diagram of the lifestyle-exposure theoretical model.

Hindelang and colleagues (1978) argue that the lifestyles of individuals who are younger, single, male, lower income, unemployed, and African American are more likely to expose these individuals to circumstances conducive to victimization. These characteristics are associated with lifestyles that involve more activity outside the household with non-family members especially at night. Moreover, Hindelang Gottfredson, and Garofalo (1978) employ the principle of homogamy to provide an additional link between particular demographic characteristics and increased victimization risk. According to this principle, individuals who are similar demographically to offenders are more likely to be exposed to potential offenders in social situations, which increases their risk of victimization (Cohen, Kluegel, & Land, 1981).

Integrated Lifestyles/Routine Activities Theory

Theorists have integrated routine activities theory with lifestyle-exposure theory to explain individual-level victimization patterns. Despite differences in language and emphasis, routine activities theory and lifestyle-exposure theory share basic assumptions about human behavior and the factors that influence the likelihood of being victimized (Meier & Miethe, 1993). Underlying both theories is the assumption that criminal behavior is rational and that offenders choose targets based on enhancing benefits and minimizing cost. Specifically, offenders select a target because it is attractive and accessible, which provides the offender with the opportunity to act on his or her desires

Figure 2.2 A Lifestyle/Exposure Model of Personal Victimization



Source: Hindelang, M. J., Gottfredson, M. R., & Garofalo, J. (1978). *Victims of personal crime: An empirical foundation for a theory of personal victimization.* Cambridge, MA: Harvard University Press.

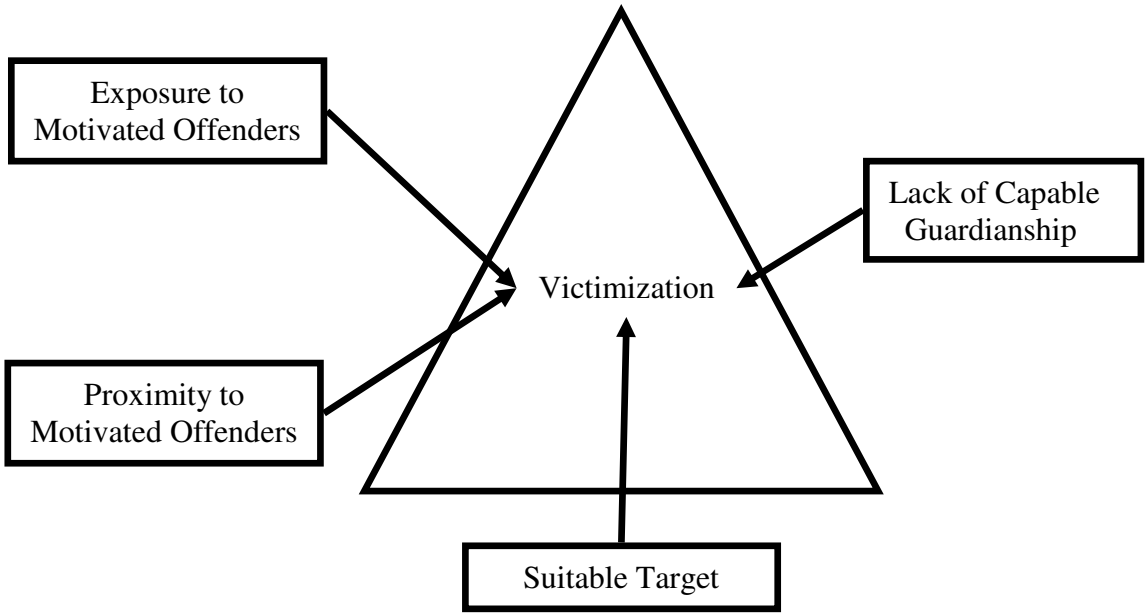
with minimal consequences. Thus, both perspectives suggest that the target selection process is influenced by spatio-temporal context. That is, one target is selected over another because the expected utility associated with choosing one target is greater compared to the selection of a different target (Meier & Miethe, 1993).

Further, each theory argues that routine activity patterns, which translate into individual lifestyles, produce opportunities for criminal victimization by influencing the likelihood that an individual will come into contact with potential offenders (Cohen & Felson, 1979; Hindelang, Gottfredson, & Garofalo, 1978; Meier & Miethe, 1993; Miethe & Meier, 1990). Collectively, an integrated lifestyle/routine activities approach proposes that certain lifestyles and routine activities predispose individuals and their property to higher risk of victimization by increasing their suitability as a target while simultaneously decreasing guardianship and increasing their exposure, as well as proximity to potential offenders. More specifically, Hindelang and colleagues (1978) identify risky lifestyles as those that involve increased involvement in activities outside the home with non-household members at night. See figure 2.3 for a conceptual diagram of the integrated L/RAT framework.

Summary of Empirical Support for the L/RAT Framework

The lifestyles/routine activities theoretical framework has been subject to numerous empirical tests. Lifestyles/routine activities theory has been applied at the individual-level, as well as at the broader macro-level. Researchers also highlight the importance of looking at both macro- and micro-level factors when predicting victimization risk within the L/RAT framework (Sampson, 1987; Sampson & Wooldredge, 1987). The evidence for the ability of L/RAT to predict victimization risk

Figure 2.3 Lifestyles/Routine Activities Theory Conceptual Model



**** Victimization is likely to occur when a suitable target and motivated offender intersect in time and space in the absence of capable guardianship.***

is generally supportive (Cohen, Kluegel, & Land, 1981; Kennedy & Forde, 1990; Lynch & Cantor, 1992; Messner & Tardiff, 1985; Miethe & Meier, 1990; Miethe, Stafford, & Long, 1987; Sampson & Lauritsen, 1990; Sampson & Wooldredge, 1987; Spano & Freilich, 2009).

Despite general empirical support, some elements of the L/RAT framework have received more empirical support than others. For instance, the relationship between proximity and exposure to motivated offenders and increased victimization risk has been relatively consistent across studies (Cohen, Kluegel, & Land, 1981; Kennedy & Forde, 1990; Massey, Krohn, & Bonati, 1989; Miethe & Meier, 1990; Sampson, 1987; Sampson

& Lauritsen, 1990). In comparison, the findings related to guardianship and target suitability have been inconsistent (Cohen, Kluegel, & Land, 1981; Massey, Krohn, & Bonati, 1989; Meier & Meithe, 1993). It is important to note that some studies indicate that specific elements outlined by L/RAT are more salient for certain offenses. For instance, Lynch and Cantor (1992) found that exposure was a significant predictor for household larceny victimization, while guardianship was not significantly related to this form of victimization. With regard to burglary, they found that guardianship significantly affected the risk of burglary victimization, whereas exposure did not influence burglary risk.

As previously noted, the L/RAT framework has been applied to a variety of different forms of victimization. The victimization outcomes examined in the current study include physical violence and property victimization, which are commonly examined within this theoretical framework. The evidence derived from the empirical research is generally supportive of L/RAT with regard to these traditional forms of victimization (see Spano & Freilich, 2009). Recent empirical tests have extended the L/RAT framework well beyond its original scope (i.e. direct-contact predatory offenses) by focusing on various forms of consumer fraud victimization (Holtfreter, Reisig, & Pratt, 2008; Pratt, Holtfreter, & Reisig, 2010) and cybercrime victimization (Holt & Bossler, 2008; Marcum, Ricketts, & Higgins, 2010). Collectively, the findings from studies of consumer fraud and online victimization support the application of the L/RAT framework to victimizations that do not involve direct contact between victim and offender. Further, extensions of L/RAT suggest that this perspective may provide insight into the dynamics underlying victimizations that are not illegal, such as

psychological/emotional abuse. Although psychological/emotional abuse does not constitute a criminal offense, it may be more likely to occur in the event that a suitable target has greater exposure and proximity to a potentially abusive individual in the absence of guardianship.

Lifestyles/Routine Activities Theory and Elder Abuse

As previously mentioned, lifestyles/routine activities theorists have not ignored the role that age plays in victimization risk. Hindelang and colleagues (1978) identify age as having a "dramatic" effect on individuals' lifestyles and suggest that fear of crime leads many elders to limit their routine activities and interactions with others, which they argue ultimately reduces the elderly's risk of being victimized (p. 247-248). However, studies that have examined the victimization risks of the elderly provide mixed support for the L/RAT propositions related to age. One of the purposes of the current research is to determine whether factors that are generally considered to protect the elderly from victimization within the L/RAT framework actually put older adults at a greater risk of being victimized. Therefore, the following sections will present findings from both the L/RAT and elder abuse literature as they relate to each of the key elements outlined by the theoretical framework: exposure and proximity to motivated offenders, target suitability, and capable guardianship. Each section will further elaborate the hypothesized relationship between age and victimization risk within the L/RAT framework, as well as assess the empirical support for each of the age-related propositions outlined by the framework.

Exposure to Motivated Offenders

One of the key propositions of lifestyles/routine activities theory is that individuals who have increased contact with potential offenders and risky situations are at a greater risk of being victimized compared to individuals who have less contact with potential offenders and risky situations. Exposure has been operationalized in a number of different ways, but a common measure of exposure is an individual's level of involvement in nonhousehold activities. Individuals who work or attend school are believed to have greater exposure to potential offenders because these activities lead the individual to spend more time away from home and in public settings (Meier & Meithe, 1993). Aging has a substantial impact on an individual's lifestyle as reflected in his or her routine activities and social interactions (Hindelang, Gottfredson, & Garofalo, 1978). As will be discussed in more detail with regard to target suitability, aging is associated with increased risk of health and cognitive impairments, as well as reductions in mobility (Brault, 2012; Nelsen & Huff-Corzine, 1998).

Further, individuals in their sixties are reaching retirement age. Retirement from work can influence victimization risk by removing the retiree from the workplace and eliminating the need to travel back and forth to work. Assuming the retiree spends more time at home, as opposed to public settings, he or she is less likely to be exposed to potential offenders. Studies have not directly measured the effects of retirement on victimization risk, but researchers have explored the relationship between employment status (i.e. employed vs. unemployed) and victimization. Based on survey data from individuals residing in six neighborhoods in Atlanta, Massey and colleagues (1989) found that full-time employment status was associated with an increased risk of personal theft.

Other research suggests that certain professions are associated with higher victimization risk compared to others (see Lynch, 1987; Block, Felson, & Block, 1985). For example, Lynch (1987) found that the nature of an individual's work influences victimization risk. Specifically, he established that individuals who work in environments that were accessible to the public and whose jobs involve traveling and handling cash were at a greater risk of being victimized compared to their counterparts (Lynch, 1987). There is also evidence to suggest that employment can function as a protective factor, reducing victimization risk in some contexts. In particular, the intimate partner violence literature suggests that women who are employed are less likely to experience relationship violence compared to unemployed women (see Bybee & Sullivan, 2005; Carlson, McNutt, Choi, & Rose, 2002; Goodman, Dutton, Vankos, & Weinfurt, 2005).

Related to changes in health, physical condition, and employment status, lifestyles/routine activities theorists have suggested that the elderly are more likely to confine their daily activities to their immediate household environment rather than more public settings (Hindelang, Gottfredson, & Garofalo, 1978; Messner & Tardiff, 1985). In particular, Kennedy and Silverman have described the routine activity of elders as "inactivity" with a large proportion of the elderly spending the majority of their time isolated in their homes (Kennedy & Silverman, 1990, p. 316). Moreover, when outlining some of the main adaptations to role expectations and structural constraints, Hindelang and colleagues (1978) discuss how one of the important adaptations that occurs as one ages is an increase in fear of crime (p. 248). Accordingly, this rising fear leads older adults to alter their daily routines in an effort to reduce their chances of being victimized, thereby limiting their interactions with possible offenders, especially strangers.

In sum, the L/RAT framework proposes that the elderly are less likely to be victimized because their lifestyles involve more time at home and they have limited contact with individuals outside of their household. A number of studies have indirectly tested the relationship between older adults' lifestyles and victimization risk by including age as a proxy for lifestyle. In general, findings indicate that the elderly are less likely to be victims of crime compared to younger adults and scholars have hypothesized that elders' inactive lifestyle is responsible for their lower victimization risk (Cohen, Kluegel, & Land, 1981; Kennedy & Forde, 1990).

However, there is evidence to suggest that even when elders are exposed to risky situations and individuals they are less likely to be victimized. For instance, Clarke and colleagues (1985) used data from the British Crime Survey (BCS) to examine the relationship between exposure to risk and street crime victimization. They operationalized exposure to potential offenders as the number of evenings spent out, as well as measured whether individuals went to risky locations (i.e. bars, clubs, or parties) at night and used risky modes of transportation (i.e. public transportation or walking). Their results indicated that the rate of victimization for elders was lower than that of younger individuals even when the elderly spent a lot of time outside of the home in the evening, visited risky locations, and used risky types of transportation (Clarke, et al., 1985). The findings suggest that it is not necessarily lack of exposure reducing elders' risk of being victimized, because even when they are exposed elders are less likely to be victimized. Instead, Clarke et al. (1985) suggest that elders may be viewed as less attractive targets for street offenses. They propose that offenders may have moral

inhibitions about targeting a vulnerable elder or that elders may be viewed as less likely to have large sums of cash or valuable items on their person (Clarke et al., 1985).

Although the L/RAT framework emphasizes the risk associated with exposure to nonhousehold members, some scholars have extended the L/RAT framework to account for crimes committed by members of the victim's family and household. Messner and Tardiff (1985) suggest that because the elderly and very young spend the majority of their time in the home, then when individuals belonging to these age groups are victimized, it is more likely to be at the hands of household members and to occur within the victim's residence. Studies that have examined victimizations committed by family members among different age groups have primarily focused on homicide.

For instance, Messner and Tardiff (1985) used data from 578 homicide cases in Manhattan to explore the ability of victim demographics to predict the location of homicides, as well as the victim/offender relationship. Hypothesizing that the very young and the elderly both spend most of their time in the home and in the company of family members, they grouped individuals under the age of 15 and individuals ages 60 and older together and compared this group to individuals between the ages of 16 and 59. Their findings indicated that the elderly and very young were more likely to be murdered by relatives and to be killed in close proximity to their homes compared to individuals between the ages of 16 and 59. These findings seem to suggest that an individual whose primary routine activities occur within the context of his or her household are at a greater risk of being victimized within his or her home and by individuals who have the most access to the victim's home, the victim's relatives (Messner & Tardiff, 1985). Subsequent studies that have separated elderly homicide victims from child and

adolescent homicide victims suggest that combining the two groups masks important trends in elderly homicide with stranger-perpetrated homicides comprising a large proportion of homicides involving elderly victims (Copeland, 1986; Fox & Levin, 1991; Kennedy & Silverman, 1990; Maxfield, 1989; Nelsen & Huff-Corzine, 1998).

Collectively, the findings from the literature examining the relationship between age, exposure, and general victimization risk, as well as the literature applying the L/RAT framework to elderly homicide victimization suggest that the lifestyles of the elderly expose them to risk in different ways than younger individuals. That is, while the extant research suggests that many elders are less likely to be exposed to potential offenders, there is also evidence to suggest that the types of lifestyles they lead and activities they participate in may place elders at a higher risk for particular forms of victimization. Specifically, the elderly may be at a greater risk of being victims of crimes that target the home or at risk of falling victims to offenders who rely on the individual being home for their scheme to be successful. For instance, telemarketing fraud offenders rely primarily on land telephone lines to victimize individuals. Based on L/RAT propositions, elders are more likely to be at home where they could answer the phone and possibly be victimized by fraudulent telemarketers.

Proximity to Motivated Offenders

The concept of proximity is used to capture the space between where potential victims live and locations characterized by a high concentration of potential offenders (Cohen, Kluegel, & Land, 1981). Proximity is related to the concept of exposure in that it is likely that individuals who live in areas where large numbers of potential offenders are found are likely to have greater exposure to potential offenders. Decreased social

distance from likely offenders and increased exposure increase the opportunities for motivated offenders to act upon their desires (Cohen, Kluegel, & Land, 1981). The relationship between close proximity to motivated offenders and increased victimization risk has found consistent empirical support in the literature (Cohen, Kluegel, & Land, 1981; Lynch & Cantor, 1992; Miethe & Meier, 1990; Sampson, 1987; Sampson & Lauritsen, 1990).

For instance, Cohen et al. (1981) found that individuals who lived in urban environments were at a greater risk of being victimized compared to those who lived in rural environments. Their findings coincide with predictions from L/RAT that suggest that a greater number of potential offenders reside in urban neighborhoods. However, Lynch and Cantor (1992) found that the association between living in a central city (i.e. urban environment) and increased risk of property victimization disappeared when the dangerousness of the street block (measured by crime rates) was held constant. Further, other factors such as the existence of commercial businesses, degree of social disorganization, and whether residents committed offenses significantly influenced risk of property crime when controlling for dangerousness of the block (Lynch & Cantor, 1992). Their findings suggest that in urban areas there is variation in individual proximity to motivated offenders depending upon other characteristics of the neighborhood.

In comparison to the L/RAT literature, which emphasizes the risk associated with proximity to potential offenders outside of an individual's household, the elder abuse literature indicates that the presence of other individuals within an elder's household may increase the likelihood of abuse (Lachs et al., 1997; Pillemer & Finkelhor, 1988). It is

important to note that household members often are viewed as sources of capable guardianship in the L/RAT literature with many researchers conceptualizing living alone as a risk factor for victimization (see Massey, Krohn, & Bonati, 1989; Miethe & Meier, 1990). Yet, elder abuse scholars have suggested that the quality and nature of the elder's relationships influence his or her risk of abuse (NCEA, 2011b). Household relationships characterized by conflict, past abuse, and/or unbalanced power relationships can be viewed as risky rather than protective.

By virtue of living in close proximity to each other, household members often have more access to each other, thus a motivated offender residing in the same household as an elder may have more opportunities to victimize the elder. A number of studies examining correlates of elder abuse find that cohabiting is related to an increased risk of victimization. For example, Lachs and colleagues (1997) found that living alone was a protective factor with 80% of abused elders reporting that they cohabit with another individual. Pillemer and Finkelhor (1988) found that elders who lived with someone else were approximately three times more likely to be abused than elders who lived alone. It is reasonable to suggest that it is not the mere presence of another individual that guarantees capable guardianship, but that the quality of the relationship between household members also matters. Capable guardianship is lacking in relationships in which a potential guardian, in this context another household member, is actually the one abusing another member of the household. Further, it is possible that abusive household members behave in ways that isolate victims from members of other social networks that could detect abuse and intervene.

Target Suitability

Suitable targets are items or individuals that are attractive to potential offenders. Suitable targets are attractive in that they have symbolic or monetary value and the offender can easily access the target without being detected (Cohen & Felson, 1979; Felson, 2001). At the micro-level, commonly used indicators of target suitability include household income, an individual's socio-economic class, carrying expensive items or cash on one's person, and possession of small, costly items like VCRS or TVs (Miethe & Meier, 1990; Rountree & Land, 1996; Sampson & Wooldredge, 1987). Empirical support for the concept of target suitability and general victimization is mixed. For example, findings with regard to income as a measure of target suitability are inconsistent with some studies indicating that high-income is associated with greater victimization risk (Cohen, Kluegel, & Land, 1981), while other studies find no relationship between income and increased victimization risk (Miethe & Meier, 1990). The lifestyle/routine activities theoretical framework suggests that the elderly and their possessions would be less likely to be viewed as suitable targets because elders spend most of their time in the home, which makes them less visible and more difficult to access.

However, some scholars have proposed that the elderly may be viewed by potential offenders as suitable targets because of common stereotypes that identify the elderly as affluent (Nelsen & Huff-Corzine, 1998). Coupled with the widespread perception that the elderly are frail and defenseless, the assets and homes of elders may be viewed as suitable targets for potential offenders. As previously mentioned, homicide studies find a prevalence of felony-related, stranger-perpetrated homicides among elderly victims, which seems to support the notion that the home is the attractive target, not

necessarily the elder (Abrams et al., 2007; Fox & Levin, 1991; Kennedy & Silverman, 1990; Nelsen & Huff-Corzine, 1998).

Focusing specifically on the physical condition of elders as an indicator of suitability, there is empirical evidence to suggest that the elderly are suitable targets for particular types of offenses (i.e. property crime and financial abuse) because of their increased risk of frailty and health related vulnerabilities (Clarke, Ekblom, Hough, & Mayhew, 1985; Setterlund et al., 2007). Given that research demonstrates that the risk of having a disability increase as one ages (see Brault, 2012), offenders may realistically evaluate an elder as a potentially suitable target. For example, offenders may accurately assess an elder who visibly displays signs of low cognitive functioning due to age-related illnesses such as Alzheimer's disease or exhibits signs of physical impairment as a suitable and attractive target. Offenders may believe that a vulnerable elder does not represent a significant threat because the elder will be less likely to resist the victimization, as well as less likely to report the victimization to authorities.

Several studies have found a relationship between cognitive and/or physical vulnerabilities and elder abuse. For instance, Lachs and colleagues (1997) established that elders who were cognitively impaired, had greater functional impairment, and who needed more assistance with activities of daily living (ADL) were at a greater risk of abuse than those who were not cognitively impaired, had lower functional impairment, and needed less help with ADL. As previously discussed, a later study found that elders with physical vulnerabilities were approximately 13% more likely to be verbally abused compared to those without physical vulnerabilities (Laumann, Leitsch, & Waite, 2008). In the case of abuse by family members or caregivers, an elderly adult may be seen as a

suitable target because he or she may not report the victimization due to his or her feelings for his or her abuser, as well as the elder's fear that the offender may retaliate and/or institutionalize the elder.

Capable Guardianship

Capable guardianship, while a distinct concept, is related to target suitability in that less guarded targets are more attractive to potential offenders. In a review of 33 L/RAT studies published in top-tier journals between 1995 and 2004, Spano and Freilich (2009) report that the overall pattern of results in the literature with regard to guardianship are in the direction predicted by the L/RAT framework. However, they found that the findings were less consistent when the outcome variable was victimization. Mixed findings with regard to guardianship are reported in several studies of victimization (Massey, Krohn, & Bonati, 1989; Miethe & Meier, 1990; Wooldredge, Cullen, & Latessa, 1992).

Lifestyle/routine activities theory proposes that elders and their homes are subject to increased guardianship because elders spend the majority of their time at home because of decreased mobility due to aging. L/RAT also suggests that elders self-isolate themselves in an effort to reduce their exposure to potential offenders (Hindelang, Gottfredson, & Garofalo, 1978). Further, the elderly are believed to be subject to greater social guardianship because it is expected that when elders do interact with others that most of their social interactions will be limited to family members, whom are expected to have a more vested interest in protecting the elder (Cohen, Kluegel, & Land, 1981; Hindelang, Gottfredson, & Garofalo, 1978). As previously discussed, empirical tests of L/RAT provide indirect support for these two propositions with elders being less likely to

experience a victimization incident compared to younger adults. However, there is also evidence that indicates that self-isolation and lack of social integration can expose elders to risk even though it reduces their exposure to risky people, situations, and places (Abrams et al., 2007; Kennedy & Silverman, 1990; Nelsen & Huff-Corzine, 1998).

In comparison to the traditional L/RAT literature that cites elders' self-imposed isolation as protective, studies of elder abuse commonly identify social isolation and lack of social support as risk factors for elder abuse (Acierno et al., 2010; Amstadter et al., 2010; Vandecar-Burdin & Payne, 2010). In line with findings from the elder abuse literature, studies of homicide have found that elders' homes are not as safe as L/RAT would suggest and that although elders are much less likely to be the victim of homicide than other age groups, the elderly have distinct patterns of homicide compared to younger persons. Kennedy and Silverman (1990) employed data from all detected homicides occurring in Canada from 1961 to 1983 to explore propositions from L/RAT predicting increased prevalence of family-perpetrated homicide among elderly victims. They found that strangers were offenders in over 44% of the homicide cases involving elderly victims (ages 65 and older), which was approximately double the percentage of stranger perpetrated homicide cases involving victims under 65.

With regard to the location of the homicide, over 75% of elderly homicide victims were killed in their homes compared to approximately 34% of homicide victims between the ages of 18 and 25 (Kennedy & Silverman, 1990). Further, when elders were killed they were over twice as likely as homicide victims in other age groups to be killed during the commission of another felony, typically economically-motivated offenses. That is, when elders were the victim of homicide, they were more likely to be killed in situations

where a burglary or robbery escalated to violence compared to when individuals in other age groups were killed.

Several other studies have also found that when the elderly are the victims of homicide that they are more likely to be killed during the commission of a burglary or robbery, while when younger individuals are murdered, they are more likely to be killed in conflict or argument related homicides (Fox & Levin, 1991; Maxfield, 1989). Kennedy and Silverman (1990) suggest that the "inactive" lifestyles of elders do not protect elders as predicted by L/RAT propositions related to exposure. Rather, an elder's homebound, isolated lifestyle does reduce the elder's exposure to potential stranger offenders in public settings, but does not necessarily reduce the chances that potential offenders will view his or her home as a suitable target. Being at home during the day, when most individuals are at work may lead a motivated offender to assume a home is vacant when it actually occupied by an elder (Kennedy & Silverman, 1990). Kennedy and Silverman (1990) suggest that the routine activity of the elderly is "inactivity" and that self-isolation within the home can leave an isolated elder vulnerable to active, motivated offenders targeting the elder's finances and/or assets (p. 316).

Summary of Empirical Support for Age-related L/RAT Propositions

In sum, the findings from the elder abuse literature and studies that have applied L/RAT to victimization among the elderly suggest that despite their reduced risk of victimization, the elderly's lifestyles and routine activities create unique patterns of victimization among this population. Elders' home-centered and isolated lifestyles are predicted to reduce their exposure to motivated offenders, yet homicide studies indicate that the home is not as safe as L/RAT suggests. Further, the elder abuse literature

demonstrates that shared living arrangements do not necessarily increase capable guardianship, but can actually increase an elder's risk of victimization through increased exposure and proximity to motivated offenders if the elder's household members are abusive. With regard to target attractiveness, the elder abuse literature indicates that physically impaired, frail, and/or cognitively disabled elders may be viewed as suitable targets because these elders are less able to defend themselves from a motivated offender. Finally, elder abuse studies suggest that elders who are lacking capable guardianship, as measured through social support and integration in social networks, are at a greater risk of being victimized compared to elders integrated in social support networks.

The Current Study

The current study builds on the existing body of literature examining elder abuse, as well as the research applying the L/RAT framework to the study of crimes against the elderly by examining victimization risk of individuals belonging to different age groups for multiple forms of victimization. First and foremost, the current study explores whether lifestyle characteristics and activities that are viewed as protective within the traditional L/RAT framework can be linked to increased risk for particular types of victimization. Further, the study explores whether being elderly is associated with increased risk of particular forms of victimization.

Past research has often included age as a control variable when examining victimization risk for offenses such as robbery, burglary, and homicide. However, few studies have examined risk factors derived from L/RAT for crimes such as fraud and none have examined the implications for L/RAT with regard to psychological abuse. In order to determine whether different risk factors contribute to specific forms of

victimization, the current research will examine four different forms of victimization. Elder abuse scholars have argued that particular forms of abuse are associated with distinct patterns of risk, thus it is important that the current study examines each form of victimization separately. Further, this study will examine a broad range of victimization experiences including two forms of victimization that are commonly investigated by criminologists, physical abuse and theft, and two that are not traditionally examined in the criminological literature, telemarketing fraud and psychological abuse.

Finally, this study aspires to fill gaps in both the elder abuse and L/RAT literature. As discussed previously, the majority of research on elder abuse is characterized by risk factor models. Many of the explanations derived from these risk factor models do not arise to formal theoretical arguments with propositions that can be empirically verified. Further, elder abuse scholars have rarely compared the risk factors for elder abuse to risk factors for victimization among younger adults. In comparison, the criminological literature is replete with theoretically based studies of crime and victimization, but relatively little focus on the victimization experiences of the elderly. The studies that have focused on elder victimization have not explored the full range of experiences encountered by elderly victims. Thus, the current study seeks to begin to branch these two literatures by performing a partial test of a prominent criminological theory, L/RAT, and by examining a variety of victimization experiences reported by younger and older individuals. Based on the L/RAT framework and prior research examining risk factors for elder abuse, the following hypotheses will be explored in the current study:

Hypothesis 1: The lifestyles of older adults will be significantly different with regard to the key elements of the L/RAT framework (i.e. exposure and proximity

to motivated offenders, capable guardianship, and target suitability). Drawing on the elder abuse and general aging literature, these differences are believed to be attributed to the normal process of growing older. Although the elderly are a heterogeneous population, research indicates that cognitive and physical functioning generally declines as individuals age (see Brault, 2012).

Hypothesis 2: Because of differences in lifestyle and routine activities, older and younger adults will be viewed as suitable targets for particular types of offenses. Thus, older adults will be more likely to experience particular forms of victimization compared to younger adults. According to the elder abuse literature, older adults may be viewed by offenders as suitable targets for consumer fraud because of their perceived wealth, as well as physical and cognitive frailty. Therefore, it is expected that older adults will be more likely to be the targets and victims of telemarketing fraud compared to younger adults. In comparison, it is expected that younger adults will be more likely to experience other forms of victimization including physical abuse, psychological abuse, and theft compared to older adults.

Hypothesis 3: In line with both the L/RAT and elder abuse research, capable guardianship is expected to reduce the risk for all types of victimization. That is, individuals of all age groups who are subject to more capable guardianship will be at a lower risk of being victimized.

Hypothesis 4: Based on the L/RAT literature, it is expected that increased exposure to motivated offenders will be related to increased victimization risk. Specifically, individuals who spend more time outside of the home (i.e. working

full- or part-time) will be at a greater risk of being victims of traditional forms of crime such as theft and physical abuse. L/RAT theory also suggests that unemployment should be related to an increase risk of victimization because the unemployed are similar demographically to potential offenders (Cohen & Felson, 1979; Hindelang, Garofalo, & Gottfredson, 1978). Thus, it is expected that unemployment will be positively associated with victimization. As the elder abuse literature suggests, however, individuals who spend a large amount of their time at home (i.e. the retired and unemployed) may be at a high risk of being victimized by offenders who rely on the victim being at home (i.e. telemarketers) to accomplish their offense. Consequently, it is expected that individuals who are retired or unemployed will be at a greater risk of being the victims of consumer fraud, compared to individuals who work full- and part-time.

Hypothesis 5: Past research has used household income as an indicator of target suitability and there is evidence to suggest that higher income is associated with increased victimization risk, namely risk of property crime victimization (see Cohen, Kluegel, & Land, 1981). Viewing individuals with higher household income as more suitable targets for crimes targeting the victim's property and/or assets, it is expected that greater household income is associated with increased risk of theft and telemarketing fraud victimization.

Hypothesis 6: Individuals who live in closer proximity to motivated offenders will be at greater risk of being victimized. Individuals who reside in more socially disorganized neighborhoods will be at a greater risk of being victimized. In addition, the elder abuse literature highlights the risk associated with

cohabiting living arrangements. Therefore, it is expected that the number of people living in a residence will be positively associated with victimization risk.

In addition to examining the aforementioned hypotheses, the current study will explore the effects of lifestyle and routine activities on overall victimization, as well as explore whether the effects of L/RAT factors on overall victimization vary by age. The findings of the current study could have significant implications for policy and practice, as well as theoretical development and future research. With regard to policy and practice, if the findings indicate that the L/RAT factors (isolation, proximity, exposure to motivated offenders, etc.) explored in the current study are contributing to greater victimization risk for elders, then programs can be designed to increase guardianship and social support for vulnerable older adults. If these factors are also related to increased victimization risk for younger adults, then outreach programs could be designed to identify and provide support to at-risk young adults.

As for theoretical development, findings that link the aforementioned L/RAT factors to increased risk of elder victimization and/or victimization of the young would imply that this theoretical perspective needs to be revised in order to account for risky lifestyle variables that are not typically measured in traditional tests of the theory. Moreover, this study could lead more criminologists to apply other criminological theories to elder victimization. Finally, if the findings of the current research confirm that L/RAT can be used to explain increased victimization risk for older adults, future research can focus on designing more refined L/RAT measures related to aging, as well as determine if the results are generalizable to older adults residing in other regions of the United States.

CHAPTER 3

METHODOLOGY

The purpose of the current study was to explore how risk factors derived from the lifestyles/routine activities theoretical framework and elder abuse literature are related to victimization risk for different types of victimization experienced by older and younger adults. The following sections will describe the data, the sample, and the variables that were used for this study. Further, a description of the plan for analysis is provided.

Data

The data for the current research were collected during the spring of 2007 as part of a larger project funded by Old Dominion University entitled "Quality of Life Indicators Among Elderly Persons: Measuring and Mapping the Interrelationships between Health, Transportation Needs, Happiness, Economics, and Mistreatment." The goal of this multidisciplinary project was to examine, as well as compare the characteristics and life experiences of older and younger adults. Three different methodological techniques were used to collect survey data to ensure that a diverse range of individuals were included in the sample. Specifically, the sample for the project is comprised of data drawn from three groups: (1) a convenience sample of 61 adult clients seeking services at a medical school and at a senior center in Virginia, (2) a sample of 746 individuals residing in two large cities in the Southeast, and (3) a convenience sample of 450 undergraduate students enrolled in sociology and criminal justice courses at a large university located in the Southeast. Tables 3.1 through 3.3 present the demographic characteristics of each sample.

Table 3.1. Telephone Survey Sample Demographic Characteristics (n = 746)

	n	%	
Sex			
Male	233	31.2%	
Female	513	68.8%	
Race			
White	520	69.7%	
Non-White	219	29.4%	
Highest Level of Education			
Less than high school	33	4.4%	
High school graduate/GED	132	17.7%	
Some college	204	27.4%	
Associate's degree	78	10.5%	
Bachelor's degree	170	22.8%	
Some graduate work	26	3.5%	
Graduate degree	101	13.6%	
Employment Status			
Retired	185	25.0%	
Employed full-time	371	50.1%	
Employed part-time	81	10.9%	
Unemployed	104	14.0%	
	x□	**s**	**Range**
Age	48.89	16.59	18-90

All three samples were administered the same survey; however, the methods of administration varied. Both the adult client and student sample were administered the survey instrument on-site, whereas the 746 Virginia residents were administered the survey via telephone. Participants for the telephone survey were randomly selected from a pool of telephone numbers that were stratified by the local population of the target area (Vandecar-Burdin & Payne, 2010, p. 161). To encourage participation, telephone survey participants were informed that their name would be entered into a drawing for a chance to win a $250 gift card. The surveys included a wide variety of measures including items assessing participants' quality of life, social support networks, neighborhood characteristics, physical and emotional health status, driving behavior, interpersonal

Table 3.2. College Student Sample Demographic Characteristics (n = 450)

	n	%	
Sex			
Male	171	38.2%	
Female	277	61.8%	
Race			
White	279	62.6%	
Non-White	167	37.4%	
Level in College			
Freshman	60	13.4%	
Sophomore	115	25.6%	
Junior	147	32.7%	
Senior	127	28.3%	
Employment Status			
Retired	2	0.4%	
Employed full-time	73	16.3%	
Employed part-time	253	56.6%	
Unemployed	119	26.6%	
	x□	**s**	**Range**
Age	21.72	4.49	18-50

relationships, perceptions of sex offenders, and victimization experiences. Additionally, demographic information was collected from each participant regarding his or her household income, employment status, age, race, and sex.

It is important to note that the data that were used in the current study has been used in a prior study that focused on risk factors for victimization. Specifically, Vandecar-Burdin and Payne (2010) used data from the telephone survey to compare risk factors for individuals under the age of 60 and individuals who were over the age of 60. The current research differs in several ways from Vandecar-Burdin and Payne (2010). First, the current study used data from the full sample, which includes all three administrations of the survey. In addition, the current study was a partial test of the L/RAT framework. Vandecar-Burdin and Payne (2010) acknowledge the utility of this framework for predicting differences in risk factors for victimization for younger and

Table 3.3. Adult Client Sample Demographic Characteristics (n = 61)

	n	%	
Sex			
Male	19	31.7%	
Female	41	68.3%	
Race			
White	41	67.2%	
Non-White	20	32.8%	
Highest Level of Education			
Less than high school	4	6.6%	
High school graduate/GED	1	1.6%	
Some college	2	3.3%	
Associate's degree	1	1.6%	
Bachelor's degree	1	1.6%	
Some graduate work	0	0.0%	
Graduate degree	1	1.6%	
Other	51	83.6%	
Employment Status			
Retired	44	74.6%	
Employed full-time	11	18.6%	
Employed part-time	2	3.4%	
Unemployed	2	3.4%	
	x□	**s**	**Range**
Age	70.40	10.94	31-92

older adults, but they do not explicitly test L/RAT. Instead, their study derived risk factors from various elder abuse explanations (i.e. social isolation, victim health impairment, and intra-individual characteristics) and explored whether these risk factors were related to victimization for older and younger adults. Given the explicit focus on L/RAT, several measures that were not included in Vandecar-Burdin and Payne's (2010) study were examined in the current, namely the various measures of exposure and proximity to motivated offenders.

Moreover, Vandecar-Burdin and Payne (2010) examined victimization in general without examining risk factors for specific forms of victimization. In comparison, the current study examined four types of victimization (i.e. telemarketing fraud, theft,

physical abuse, and psychological abuse) separately to determine whether risk factors derived from the L/RAT framework are different for each type of victimization. The elder abuse literature suggests that different risk factors are associated with specific forms of victimization, therefore the current study explored whether each of the L/RAT factors included in the analyses are linked to increased risk of all four types of victimization, or if certain factors are related to increased risk of particular forms of victimization. In addition to exploring the impact of age on victimization risk for the entire sample, the current research also explored the effect of belonging to specific age categories on victimization risk. Vandecar-Burdin and Payne (2010) estimated separate models for only two age groups, individuals who were younger than the age of 60 and individuals who were ages 60 and older. Even though it is useful to compare older victims to younger victims, examining the effect of being middle-aged on victimization risk could potentially reveal important differences between this group and both younger and older victims.

Sample

Data from the combined sample of 1,257 participants were used for this study, which allowed for the comparison of younger and older adults, as well as for an examination of risk factors for victimization among middle-aged individuals (see Table 3.4 for full sample characteristics). Individuals ages 60 years old and over were purposely over-sampled in order to be able to have a large enough sample of older adults for statistical analysis. Approximately 21% (n = 264) of the entire sample was made up of individuals ages 60 or older and the average age of the sample was 40.2 years old (s =

Table 3.4. Characteristics of Full Sample (n = 1,257)

	n	%	x□	s	Range
Sex					
Male	423	33.7%	--	--	--
Female	831	66.3%	--	--	--
Race					
White	840	67.4%	--	--	--
Non-White	406	32.6%	--	--	--
Household Income					
Less than $25,000	190	18.2%	--	--	--
$25,000 and above	854	81.8%	--	--	--
Employment Status					
Retired	231	18.5%	--	--	--
Employed full-time	455	36.5%	--	--	--
Employed part-time	336	26.9%	--	--	--
Unemployed	225	18.0%	--	--	--
Social Isolation					
Socialize weekly (1 = yes)	--	--	0.87	0.33	0 – 1
Feel connected to others (1 = yes)	--	--	0.91	0.29	0 – 1
Attend church regularly (1 = yes)	--	--	0.45	0.50	0 – 1
Age	--	--	40.22	19.68	18 – 92
Neighborhood Environment Scale	--	--	8.99	3.05	5 – 20
Number of Household Members	--	--	2.98	1.43	1 – 9

19.7). The majority of the sample is White (67.4%, n = 840) and female (66.3%, n = 831).[1]

Independent Variables

Target Suitability

Age. Since the current study focused on the influence of age on victimization risk, the primary measure of target suitability that was used was chronological age. As previously discussed, age is viewed as a major factor that influences individual lifestyles and routine activities. Age is commonly included as a key demographic variable in

[1] According to data from the 2000 U.S. Census, approximately 49% of the region from which the sample was drawn was male and approximately 60% were White. Nearly 57% of the region was employed and 27% had a college degree. The median household income reported by residents of the region was approximately $42,000 and the median age was approximately 34 years old (U.S. Census Bureau, 2000). Thus, the sample is similar to the region in terms of sex and racial makeup, but differs with regard to other key demographic characteristics.

studies employing the L/RAT framework (Clarke, Ekbolm, Hough, & Mayhew, 1985; Cohen, Kluegel, & Land, 1981; Kennedy & Forde, 1990; Kennedy & Silverman, 1990; Miethe, Stafford, & Long, 1987; Messner & Tardiff, 1985; Nelsen & Huff-Corzine, 1998) and age has been used as a proxy measure for target suitability (Massey, Krohn, & Bonati, 1989). Researchers have suggested that offenders may view older individuals as suitable targets because the elderly often are perceived as being frail and physically vulnerable (Clarke, Ekblom, Hough, & Mayhew, 1985; Setterlund et al., 2007).

In the current study, age was measured in several ways for different stages of the analysis. At the bivariate level, a *categorical age variable* was introduced as an independent variable. Individuals ages 18 to 29 were coded as "0", individuals ages 30 to 59 were coded as "1", and individuals ages 60 and above were coded as "2." This allowed for the examination of the effects of belonging to a specific age category on each of the L/RAT variables, as well as victimization risk. In the first set of multivariate models, a *continuous age variable* was used to examine the general effect of age on victimization risk. In the final series of multivariate models, *age dummy variables* were used to investigate the effect of belonging to a particular age group on risk of victimization. Specifically, dummy variables were created for the aforementioned age groups: 18 to 29 years old, 30 to 59 years old, and 60 years old and older. Individuals were coded as "1" if they belonged to a given age group and "0" if they did not. For instance, if an individual is 62 then they were coded as a "1" for the age group 60 years old and older and as a "0" for the other two age groups.

Approximately 43% (n = 537) of the sample belonged to the 18 to 29 year old age group, 36% (n = 450) belonged to the 30 to 59 year old age group, and roughly 21% (n =

264) belonged to the 60 years old and above age group. Similar age groups have been used in past research (see Clarke et al., 1985; Cohen, Kluegel, & Land, 1981) and allowed for the exploration of the effect of belonging to a particular age group on victimization risk. Since the group comprised of individuals ages 18 to 29 is the largest group, this variable was used as the referent in the analyses.

Income. Past research has suggested that offenders perceive individuals with higher income as more attractive targets, especially for property victimization (Cohen, Kluegel, & Land, 1981). Therefore, income was used as an additional measure of target suitability. Each participant was asked to indicate his or her total household income, including all members of the household. Original responses were coded on a 12-point scale with categories ranging from less than $10,000 (coded as 1) to $110,000 and above (coded as 12). To ease interpretation of results, respondents' original responses to this item were dichotomized based on U.S. Census poverty threshold estimates. According to the U.S. Census Bureau, the 2010 average poverty threshold for an American household with four members was $22,314 (U.S. Census Bureau, 2011). This figure falls with the range of $20,000-$24,999 on the 12-point scale used in the survey. Therefore, responses were recoded to create a dichotomous variable so that those who reported a household income of $24,999 or below were coded as "0" and those who reported a household income of $25,000 and above were coded as "1."

Capable Guardianship

Studies have measured capable guardianship in terms of both physical (i.e. use of alarms, locks, fences, etc.) and social (i.e. presence of friends and family in one's neighborhood, relationships with neighbors, etc.) guardianship. Unfortunately, the

survey instrument used in the current research did not include measures of physical guardianship, thus only social guardianship was included in the analyses. According to L/RAT, social guardians such as friends, neighbors, and family members are key sources of guardianship (Felson, 2001). Moreover, the elder abuse literature suggests that low social support and social isolation may be a risk factor for elder abuse (Acierno et al., 2010; Comijs et al., 1998). To capture social guardianship, three different items were used to measure different aspects of an individual's social support network.

Attend church regularly. Participants were asked to rate their level of agreement with the statement, "I attend church regularly." Responses were coded on a four-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree). To simplify the interpretation of results and to reflect whether or not a person regularly attended church, responses to this item were dichotomized. Specifically, original responses were recoded to "0" (strongly disagree/disagree) and "1" (agree/strongly agree). Roughly 45% of the sample indicated that they attended church regularly.

Socialize weekly. Each participant was asked to rate his or her level of agreement with the statement, "I socialize with family and friends every week." Originally, responses were coded on a four-point Likert scale ranging from strongly disagree (1) to strongly agree (4). Similar to the church attendance item, responses were recoded to reflect whether or not a person socialized weekly with friends and family. That is, participants were coded as a "0" if they disagreed or strongly disagreed with the statement and as a "1" if they agreed or strongly agreed with the statement. Approximately 13% of the sample reported that they did not socialize with family and friends on a weekly basis.

Feel connected to others. Participants were also asked to rate their level of agreement with the statement, "I feel connected to other people." Similar to the other guardianship measures, original responses were coded on a four-point Likert scale (1 = strongly disagree, 2 = disagree, 3 = agree, 4 = strongly agree). To create a dichotomous measure reflecting whether a person felt he or she was connected to others, responses were recoded as "0" for participants who strongly disagreed or disagreed and as "1" for participants who strongly agreed or agreed. Approximately 10% of the sample indicated that they did not feel connected to others.

Several studies have tapped into the concept of social guardianship by evaluating levels of social support and the presence of social ties (Pederson, 2001; Schreck, Wright, & Miller, 2002; Spano & Nagy, 2005). Measuring social guardianship in this manner is based on the assumption that individuals embedded in social support networks are exposed to increased levels of guardianship and supervision, which may increase the likelihood of intervention in the event of victimization. That is, individuals with higher levels of social support are more likely to be in contact with others in their social network who can act as capable guardians compared to individuals who are not embedded in social support networks. Although this approach is imperfect and does not tap into whether members of an individual's social support network are physically present and able to intervene on the individual's behalf, assessing participants' levels of social support is able to capture each participant's degree of social isolation. Social isolation is viewed as both a risk factor (i.e. reduces capable guardianship) and a protective factor (i.e. reduces exposure to motivated offenders) in the L/RAT framework (Spano & Nagy, 2005).

Proximity to Motivated Offenders

Researchers have highlighted the importance of examining the neighborhood or community context when investigating victimization risk within the L/RAT framework (Lynch & Cantor, 1992; Miethe & Meier, 1990; Rountree & Land, 1996; Sampson & Wooldredge, 1987). Lifestyles/routine activities theorists view attributes of an individual's neighborhood such as the crime rate, level of social disorganization, and residential mobility as indicative of an individual's proximity to motivated offenders (see Lynch & Cantor, 1992; Miethe & McDowall, 1993). Although macro-level indicators of neighborhood context are prevalent throughout the L/RAT literature, subjective measures assessing individuals' perceptions of the neighborhood in which they reside and/or work are also commonly used (Lynch, 1987; Massey, Krohn, & Bonati, 1989; Miethe & Meier, 1990; Wooldredge, Cullen, & Latessa, 1992).

Neighborhood environment scale. The current study measured proximity to motivated offenders by creating a subjective measure based on participants' perceptions of their neighborhood environment. Several items were included in the survey to capture a participant's perceptions of physical and social disorder within his or her neighborhood. Participants were asked to indicate their level of agreement with the following statements: "Litter is a major problem in my neighborhood.", "There are major signs of vandalism in my neighborhood.", "A lot of houses around mine have burglar bars on the windows.", "Unsupervised youth are always in my neighborhood.", and "Public drinking is a problem in my neighborhood." Responses were originally coded on a Likert scale ranging from strongly disagree (1) to strongly agree (4). These measures were used to create a scale that reflected participants' proximity to motivated offenders (Cronbach's

alpha = 0.83). Higher scores on the scale indicate more social and physical disorder within the neighborhood, thus greater proximity to motivated offenders. Scores on the neighborhood environment scale ranged from 5 to 20 ($\bar{x}$ = 8.99).

Number of household members. The elder abuse literature has suggested that household members should be viewed as potential offenders with cohabiting living arrangements being a risk factor for elder abuse. Thus, the number of individuals living in each participant's home was used as an additional measure of proximity to motivated offenders. Every participant was asked, "How many people live in your residence, including you?" Responses ranged from 1 to 9 with a mean of 2.98.

Exposure to Motivated Offenders

According to L/RAT, individuals who are engaged in more non-household activity are at a greater risk of being victimized. However, there is reason to believe that elders' home-centered lifestyle places them at a greater risk of being victims of particular forms of victimization such as theft and fraud.

Employment Status. To explore the relationship between household activity, exposure, and victimization, a measure of employment status was included to capture an individual's level of non-household activity, which according to L/RAT reflects the individual's exposure to motivated offenders. Each participant was asked to indicate whether he or she was retired, employed part-time, employed full-time, or unemployed. Employment status was measured in two ways at different stages of the analysis. At the bivariate level, a *four-category employment status variable* was used to examine the relationship between employment status and age, as well as victimization risk. In the multivariate analyses, *employment status dummy variables* were created for different

employment statuses. Specifically, the variable for retired was coded as "1" if the individual indicated that he or she was retired and "0" if he or she indicated his or her employment status was something other than retired. This was done for all other employment categories (i.e., employed full-time, employed part-time, and unemployed). Approximately 19% of the sample reported that they were retired, over 36% indicated that they worked full-time, 27% reported they worked part-time, and 18% were unemployed.

Control Variables

In addition to the aforementioned independent variables, prior research has suggested that other demographic characteristics such as race and sex influence the victimization risk of the elderly (Acierno et al., 2010; Faggiani & Owens, 1999; Krienert & Walsh, 2010; Laumann, Leitsch, & Waite, 2008). Therefore, the current study included race and sex as control variables in the analysis. Race was measured as a dichotomous variable (non-White = 0, White = 1) with approximately 67% of the sample (n = 840) reporting their race as Caucasian or White. Sex was also included as a control variable. Sex was measured as a dichotomous variable (male = 0, female = 1). Roughly two-thirds of the sample was female (66.3%, n = 831).

Dependent Variables

Telemarketing Fraud Victimization

A single measure was used to determine if a participant had ever been the victim of telemarketing fraud. All participants were asked to rate on a four-point Likert scale (1 =strongly agree, 2 = agree, 3 = disagree, 4 = strongly disagree) whether they agreed with the statement, "I have made purchases over the phone that resulted in me being ripped

off." For the current study, responses to this item were recoded as "1" if participants indicated that they agreed or strongly agreed with the item, and coded as "0" if they disagreed or strongly disagreed. Approximately 9% of the sample (n = 107) indicated that they had been the victim of telemarketing fraud. Table 3.5 presents the descriptive statistics related to victimization for the full sample (See Appendix A for breakdown of victimization experiences by age group).

Table 3.5. Victimization Experiences of Full Sample

	n	%
Telemarketing fraud targeting		
Yes	481	41.6%
No	675	58.4%
Telemarketing fraud victimization		
Yes	107	8.7%
No	1121	91.3%
Theft victimization		
Yes	445	36.1%
No	786	63.9%
Physical abuse victimization		
Yes	193	15.6%
No	1042	84.4%
Psychological abuse victimization		
Yes	314	25.6%
No	914	74.4%
Overall victimization		
Yes	628	51.6%
No	588	48.4%

Telemarketing Fraud Targeting

The current study also included a variable that assessed whether participants had ever been contacted by a telemarketer that they believed to be fraudulent. Specifically, each participant was asked to rate his or her agreement with the statement, "I have received calls from a fraudulent telemarketer." Similar to the telemarketing fraud

victimization measure, responses were originally coded on a four-point Likert scale ranging from strongly disagree (1) to strongly agree (4). The item was recoded into a dichotomous variable so that participants who agreed or strongly agreed with the statement were coded as "1" and participants were coded as "0" if they disagreed or strongly disagreed with the statement. Over 41% of the sample (n = 481) reported that they had received calls from a telemarketer they believed to be fraudulent.

Theft

A single item was included in the current study to determine whether a participant had been the victim of theft within the five years preceding the survey. Participants were asked to indicate their level of agreement with the statement, "In the past five years, I have had items or money stolen from me." Responses ranged from strongly disagree (1) to strongly agree (2). In order to create a dichotomous measure, original responses were recoded as "1" for participants who agreed or strongly agreed with the statement and as "0" for participants who disagreed or strongly disagreed with the statement. Approximately 36% of the sample (n = 445) indicated that they had been the victim of theft in the past five years.

Physical Abuse

A single item was used to assess whether participants had been physically abused during the five years preceding their participation in the study. Participants were asked to rate their level of agreement with the statement, "In the past five years, I have been hit (physically) by someone." Responses to this item were coded on a four-point Likert scale ranging from strongly disagree (1) to strongly agree (4). The item was recoded to create a dichotomous measure that reflects whether the person agreed or disagreed with

the physical abuse item (0 = disagree/strongly disagree, 1 = agree/strongly agreed). Approximately 16% the sample (n = 193) reported that they had experienced physical abuse within the past five years.

Psychological Abuse

Each participant was asked about two types of psychological abuse that they may have experienced in five years before the survey. The following two statements were included in the survey: "In the past five years, I have been yelled at or threatened in my home." and "In the past five years, I have had someone scare me in my own home." Participants were asked to rate their level of agreement with each statement on a scale ranging from strongly disagree (1) to strongly agree (4). Original responses to each item were recoded to create two dichotomous psychological abuse measures with a participant who agreed or strongly agreed with a statement coded as "1" and coded as "0" if the participant disagreed or strongly disagreed with a statement. The two dichotomous psychological abuse variables were used to create a single psychological abuse variable. Participants were coded as "1" if the participant agreed or strongly agreed with at least one of the two psychological abuse items and "0" if he or she disagreed or strongly disagreed with both of the psychological abuse items. Nearly 26% of the sample (n = 314) reported that they had experienced psychological abuse in the past five years.

Overall Victimization

To examine the effects of the L/RAT variables on overall victimization risk, a variable was created to measure a participant's experience with all forms of victimization. The telemarketing fraud victimization, psychological abuse, physical abuse, and theft items were used to create a summative scale reflecting an individual's

experiences with all forms of victimization. The scale ranged from 0 to 4. Approximately 52% (n = 628) of the sample indicated that they had experienced at least one of the four types of victimization. For the current analysis, the scale was used to create a dichotomous variable that measured whether the individual had experienced at least one or more forms of victimization. Participants were coded as "1" if they reported experiencing at least one of the four types of victimization and "0" if they reported that they had not experienced any of the four types of victimization.

Plan of Analysis

Bivariate Analyses

The analysis for the current study was conducted in stages. First, bivariate analyses were estimated to examine the relationship between independent and dependent variables. Chi-square tests for significance were used to investigate the association between two dichotomous variables. Due to the large number of Chi-square tests conducted, the Bonferroni correction was used. Thus, a *p*-value of $p < .006$ was considered as significant and reaching the alpha level of .05. Independent sample *t*-tests were used to test the bivariate relationship between variables measured at the interval/ratio level and categorical variables. Similar to the Chi-square analyses, the Bonferroni correction was used to adjust *p*-values for *t*-tests and a *p*-value of $p < .017$ was considered significant at the alpha level of .05. ANOVAs were used to compare the means for each interval/ratio level variable and the categorical age variable. In order to examine the hypothesized relationship between age and lifestyles/routine activities outlined in the first hypothesis, bivariate analyses were conducted treating age as a three-category independent variable and each of the L/RAT variables as outcomes. Further, the

bivariate relationships between the categorical age variable and each of the dichotomous victimization measures were also examined.

Multivariate Analyses

Since all of the outcome variables were dichotomous, a series of multivariate logistic regression models were estimated to test the relationship between the independent variables and each outcome variable. First, a series of models were estimated for the entire sample that examined the effects of the independent variables on each type of victimization. The measure of age as a continuous variable was included in this series of models. Next, a separate series of models were estimated that introduced the dummy variables for age as independent variables. A model was also estimated that examined the relationship between all of the L/RAT variables (including age as a continuous variable) and overall victimization. Finally, age-specific models were estimated that investigated the effects of the L/RAT variables on overall victimization for different age groups. Specifically, the sample was split into three different groups: individuals ages 18 to 29, individuals ages 30 to 59, and individuals ages 60 and older. For each age group, a multivariate logistic regression model including all of the L/RAT variables (with the exception of age) predicting overall victimization was estimated. The age-specific models allowed the analyst to explore whether the effects of the L/RAT variables varied across the three age groups.

Logistic regression analysis was appropriate for the current study because the outcome variables were all dichotomous. The majority of regression techniques assume multivariate normality, but dichotomous variables do not exhibit a normal distribution. In addition, the relationship between the outcome and independent variables is assumed

to be linear when estimating an ordinary least squares (OLS) regression model. In the case of dichotomous outcomes, however, the expected values for y given x are expressed as probabilities that range from 0 to 1. As opposed to predicting a score like in OLS regression, logistic regression analysis predicts the likelihood that the outcome will occur or not occur for a given value of the independent variable. As a result, the plot of the probabilities produces an s-shaped curve instead of a straight line. Logistic regression takes into account this non-normal distribution through the use of the logit transformation. The logit removes the s-shaped curve and meets many of the assumptions of linear regression, thus permits for a linear model. Specifically, the logit's parameters are linear, it may be continuous, and it may range from -∞ to +∞ (Hosmer & Lemeshow, 2000, p. 6). Since several independent variables were included in the current analyses, multivariate logistic regression models were estimated. The multivariate logistic regression equation is expressed as:

$$g(x) = \ln\left[\frac{\pi(x)}{1-\pi(x)}\right] = \beta_0 + \beta_1 x_1 + \ldots + \beta_k x_k + \varepsilon$$

CHAPTER 4

RESULTS

This chapter presents findings from analyses conducted to examine the relationships between the lifestyle/routine activities variables and victimization (refer to Table 4.1 for a summary of hypotheses). First, findings from the bivariate analyses examining the relationships between the age categories and the L/RAT variables will be reported. Next, a discussion of the bivariate results investigating the effects of the lifestyles/routine activities and control variables on victimization risk will be provided. Finally, results from a series of multivariate logistic regression models estimating the

Table 4.1. Summary of Hypotheses

Hypothesis 1	Younger and older adults are significantly different with regard to the L/RAT variables.
Hypothesis 2	Older adults are at a greater risk of telemarketing fraud victimization and targeting compared to younger adults. Younger adults are at a greater risk of being the victims of other forms of victimization (i.e. physical abuse, psychological abuse, and theft).
Hypotheses 3	For individuals of all age groups, capable guardianship reduces the risk of all types of victimization.
Hypothesis 4	Greater exposure to motivated offenders (part- and full-time employment) increases the risk of physical abuse and theft victimization. Retirement increases the risk of telemarketing fraud and targeting. Unemployment increases the risk of all forms of victimization.
Hypothesis 5	Higher income increases the risk of property victimization (i.e. theft) and consumer fraud (i.e. telemarketing fraud).
Hypothesis 6	Greater proximity to motivated offenders (i.e. higher number of household members and increased levels of neighborhood social disorganization) increases the risk of all types of victimization.

effects of the lifestyles/routine activities variables and control variables on telemarketing fraud targeting, four types of victimization (i.e. telemarketing fraud, theft, physical abuse, and psychological abuse), and overall victimization will be discussed.

Bivariate Results

Age Category and Lifestyles/Routine Activities Variables

Based on predictions from L/RAT and literature on the effects of aging, it was expected that the lifestyles and routine activities of older adults would be significantly different from those of younger adults (hypothesis 1). To explore differences in lifestyle and routine activities across age groups, a categorical age variable that divides individuals into the young, middle, and older age groups was used as the independent variable in the analyses. Chi-square tests and ANOVAs were used to determine if individuals in the three age groups were significantly different with regard to the four categories of L/RAT variables (i.e., target suitability, capable guardianship, exposure, and proximity). Tables 4.2 through 4.5 report the results of the bivariate analyses comparing individuals belonging to each of the three age categories with regard to their lifestyles and routine activities.

Table 4.2 displays a breakdown of income by age category and the results of the Chi-square tests. As the table shows, the findings indicate that age was significantly related to household income. Almost 95% of individuals between the ages of 30 and 59 reported a household income of $25,000 or more, while approximately 80% of individuals ages 60 and older and 73% of individuals between the ages of 18 and 29 reported an income of $25,000 or more.

Table 4.2. Age by Target Suitability (Income)

	Household income	
	≤ $25,000	**≥ $25,000**
	% (n)	% (n)
Age 18 – 29	27.2% (134)	72.8% (359)
Age 30 – 59	5.2% (20)	94.8% (363)
Age 60+	20.4% (33)	79.6% (129)
χ^2	71.089***	

***p <.001.

Table 4.3 presents the results of cross-tabulations examining the association between age and the three capable guardianship measures. Age was significantly associated with two of the guardianship measures, socialize weekly and attend church regularly. Approximately 91% of individuals between the ages of 18 and 29 indicated that they socialized with their friends and family every week compared to roughly 85% of individuals in the middle age category (30-59) and 86% of older individuals (ages 60 and older). This finding seems to suggest that one's level of socializing generally declines as one grows older. A slightly higher percentage, however, of those in the oldest age group reported that they socialized weekly compared to middle-aged individuals. Further, church attendance appears to increase as one ages.

Age was also significantly associated with the exposure variable, employment status (see Table 4.4 for results). The majority of individuals between the ages of 18 and 29 reported that they were employed part-time. In comparison, the majority of

Table 4.3. Age by Capable Guardianship

	Feel connected to others		Socialize weekly		Attend church regularly	
	No % (n)	Yes % (n)	No % (n)	Yes % (n)	No % (n)	Yes % (n)
Age 18 – 29	11.6% (61)	88.4% (464)	9.5% (50)	90.5% (475)	63.7% (334)	36.3% (190)
Age 30 – 59	8.4% (37)	91.6% (405)	15.2% (68)	84.8% (379)	50.4% (225)	49.6% (221)
Age 60+	6.9% (18)	93.1% (242)	12.5% (154)	86.0% (222)	42.5% (108)	57.5% (146)
χ^2	**5.426**		**7.746***		**35.696*****	

*p < .05. ***p <.001.

Table 4.4. Age by Exposure (Employment Status)

	Full-time	Part-time	Retired	Unemployed
	% (n)	% (n)	% (n)	% (n)
Age 18 – 29	25.5% (136)	49.0% (261)	0.2% (1)	25.3% (135)
Age 30 – 59	63.1% (282)	11.9% (53)	7.8% (35)	17.2% (77)
Age 60+	13.4% (35)	7.7% (20)	74.3% (194)	4.6% (12)
χ^2	917.042***			

***p <.001.

individuals between the ages of 30 and 59 reported that they worked full-time and the majority of individuals ages 60 and older reported that they were retired.

Table 4.5 presents the findings from the ANOVA that tested for significant differences across the three age groups' means for the two proximity measures. The results demonstrate that there are significant differences between the three age groups

with regard to scores on the neighborhood environment scale and the number of individuals residing in the household. A Tukey HSD post hoc test was used to determine which groups were significantly different. The youngest age category's (ages 18 to 29) mean score on the neighborhood environment scale was significantly higher than the oldest age category's (age 60 and above) mean score. The mean score of the middle category, individuals between the ages of 30 and 59, was not significantly different from either the 18 to 29 age category or the 60 and above category. All three age groups are significantly different from one another with regard to the number of individuals residing in their household. The mean number of household members for individuals ages 18 to 29 was 3.42 compared to 3.06 for individuals ages 30 to 59 and a mean of 1.95 for individuals age 60 and above. It appears that as age increases, the number of household members decreases. Overall, the bivariate findings seem to support the hypothesis that older and younger adults differ in terms of lifestyle and routine activities.

Table 4.5. ANOVA Results

	Age 18-29		**Age 30-59**		**Age 60+**		
ANOVA	x□	s	x□	s	x□	s	F
Proximity							
Neighborhood environment[a]	9.30	3.44	8.84	2.72	8.60	2.64	5.194**
Total n	*518*		*439*		*242*		
Number of household members[b]	3.42	1.38	3.06	1.36	1.95	1.10	109.262***
Total n	*534*		*447*		*261*		

**p < .01. ***p <.001.
[a] Persons ages 18 to 29 were significantly different from individuals age 60 and older.
[b] All three age groups were significantly different from one another.

Age Category and Victimization

It was hypothesized that older adults would be at a greater risk of being victimized by telemarketers, whereas younger adults would be at a higher risk of being victims of other types of victimization (hypothesis 2). Chi-square tests were used to examine the association between age and the six outcome variables. Table 4.6 displays the results of the Chi-square tests. Age was not significantly related to telemarketing fraud targeting, nor was age significantly related to telemarketing fraud victimization. Thus, there is no support at the bivariate-level for the hypothesis that older adults are more likely to be the targets and victims of telemarketing fraud.

Age was significantly associated with physical abuse, theft, psychological abuse, and overall victimization. In line with the second hypothesis, the findings indicate that a greater percentage of individuals between the ages of 18 and 29 are the victims of physical abuse, theft, and psychological abuse. Approximately 28% of individuals between the ages of 18 and 29 indicated that they had experienced physical abuse in the past five years compared to nearly 9% of individuals between the ages of 30 and 59 and approximately 4% of individuals ages 60 and older. Roughly 45% of individuals between the ages of 18 and 29 reported that they had been the victim of theft in the past five years compared to 37% of individuals ages 30 to 59 and 16% of individuals ages 60 and above. Nearly 38% of individuals ages 18 to 29 reported that they had been psychologically abused in the past five years. In comparison, approximately 20% of individuals ages 30 to 59 and roughly 10% of individuals ages 60 and above reported that they had experienced psychological abuse in the past five years. In terms of overall

Table 4.6. Age by Victimization Type

	Telemarketing fraud targeting		Telemarketing fraud		Physical Abuse		Theft		Psychological Abuse		Overall Victimization	
	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)
Age 18 – 29	61.6% (317)	38.4% (198)	91.0% (477)	9.0% (47)	72.4% (381)	27.6% (145)	54.6% (287)	45.4% (239)	62.2% (326)	37.8% (198)	34.3% (179)	65.7% (343)
Age 30 – 59	55.9% (227)	44.1% (179)	91.9% (410)	8.1% (36)	91.5% (409)	8.5% (38)	62.9% (280)	37.1% (165)	79.6% (355)	20.4% (91)	50.3% (223)	49.7% (220)
Age 60+	55.5% (127)	44.5% (102)	90.9% (229)	9.1% (23)	96.5% (247)	3.5% (9)	83.9% (213)	16.1% (41)	90.5% (228)	9.5% (24)	74.3% (182)	25.7% (63)
χ^2	**3.956**		**0.327**		**102.590***		**63.725***		**81.345***		**108.018***	

*p < .05 with Bonferroni correction.

victimization, a larger percentage of individuals ages 18 to 29 reported experiencing at least one form of victimization compared to individuals ages 30 to 59 and individuals ages 60 or older.

Capable Guardianship and Victimization

According to L/RAT, increased guardianship reduces victimization risk (hypothesis 3). Chi-square tests were conducted to investigate the association between each of three guardianship measures and each of the five victimization variables, as well as the telemarketing fraud targeting variable (see Table 4.7a and 4.7b for results). The findings provide little initial support for the third hypothesis with very few of the guardianship measures being significantly related to the various victimization outcomes.

Table 4.7a. Capable Guardianship by Victimization Type

	Telemarketing Fraud Targeting		**Telemarketing Fraud**		**Physical Abuse**	
	No % (n)	Yes % (n)	No % (n)	Yes % (n)	No % (n)	Yes % (n)
Feel connected to others (0 = no)	59.1% (65)	40.9% (45)	84.5% (98)	15.5% (18)	75.2% (88)	24.8% (29)
Feel connected to others (1 = yes)	58.4% (607)	41.6% (433)	92.0% (1017)	8.0% (89)	85.3% (949)	14.7% (163)
χ^2	**0.022**		**7.333**		**8.238**	
Socialize weekly (0 = no)	59.6% (87)	40.4% (59)	87.7% (136)	12.3% (19)	86.5% (134)	13.5% (21)
Socialize weekly (1 = yes)	58.2% (587)	41.8% (421)	91.8% (984)	8.2% (88)	84.2% (908)	15.8% (171)
χ^2	**0.096**		**2.789**		**0.546**	
Attend church regularly (0 = no)	59.4% (374)	40.6% (256)	91.9% (615)	8.1% (54)	83.0% (557)	17.0% (114)
Attend church regularly (1 = yes)	57.2% (297)	42.8% (222)	90.6% (501)	9.4% (52)	86.2% (481)	13.8% (77)
χ^2	**0.536**		**0.678**		**2.362**	

*p < .05 with Bonferroni correction.

Table 4.7b. Capable Guardianship by Victimization Type

	Theft		Psychological Abuse		Overall Victimization	
	No % (n)	Yes % (n)	No % (n)	Yes % (n)	No % (n)	Yes % (n)
Feel connected to others (0 = no)	51.3% (60)	48.7% (57)	64.1% (75)	35.9% (42)	38.8% (45)	61.2% (71)
Feel connected to others (1 = yes)	65.4% (725)	34.6% (383)	75.5% (834)	24.5% (271)	49.5% (542)	50.5% (552)
χ^2	**9.207***		**7.182**		**4.852**	
Socialize weekly (0 = no)	60.0% (93)	40.0% (62)	71.9% (110)	28.1% (43)	45.1% (69)	54.9% (84)
Socialize weekly (1 = yes)	64.5% (693)	35.5% (382)	74.9% (804)	25.1% (270)	48.9% (519)	51.1% (543)
χ^2	**1.171**		**0.620**		**0.762**	
Attend church regularly (0 = no)	60.9% (406)	39.1% (261)	71.0% (475)	29.0% (194)	44.5% (295)	55.5% (368)
Attend church regularly (1 = yes)	67.6% (377)	32.4% (181)	78.7% (436)	21.3% (118)	53.1% (291)	46.9% (257)
χ^2	**5.902**		**9.452***		**8.900***	

*$p < .05$ with Bonferroni correction.

None of the guardianship measures were significantly associated with telemarketing fraud targeting and victimization, nor were they significantly associated with physical abuse. Feeling connected to others was significantly associated with theft. Approximately 49% of individuals who do not feel connected to others indicated that someone had stolen something from them in the past five years compared to approximately 35% of those who indicated that they do feel connected to other people. The church attendance item was significantly associated with psychological abuse and overall victimization. The results indicate that significantly more individuals who are not regular churchgoers experienced psychological abuse in the past five years compared to

individuals who regularly attend church. Twenty-nine percent of those who do not attend church on a regular basis reported that they had experienced psychological abuse in the past five years compared to approximately 21% of those who do attend church regularly. For overall victimization, roughly 56% of individuals who do not regularly attend church reported at least one victimization experience compared to 47% of individuals who regularly attend church.

Exposure to Motivated Offenders and Victimization

It was hypothesized that greater exposure, reflected by part- and full-time employment, would be related to increased victimization risk for traditional forms of victimization (i.e. theft and physical abuse) and that retirement would increase the risk of telemarketing fraud (hypothesis 4). Further, it was expected that unemployment would increase the risk of experiencing all forms of victimization. A Chi-square test was used to examine the bivariate association between exposure and victimization (see Table 4.8 for results). The four-category employment status variable was found to be significantly related to physical abuse, theft, psychological abuse, and overall victimization.

The findings lend partial support to the fourth hypothesis with a larger percentage of part-time workers reporting victimization compared to retired persons. In addition, a larger percentage of part-time workers reported victimization compared to full-time workers. Also in line with hypothesis 3, a greater percentage of unemployed workers reported victimization compared to participants belonging to the other three employment categories. Approximately 27% of unemployed participants reported that they had experienced physical abuse in the past five years compared to 24% of participants who worked part-time, 11% who worked full-time, and 3% who were retired. Nearly 46%

Table 4.8. Exposure (Employment Status) by Victimization Type

	Telemarketing fraud targeting		Telemarketing fraud		Physical Abuse		Theft		Psychological Abuse		Overall Victimization	
	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)
Retired	55.6% (114)	44.4% (91)	89.6% (198)	10.4% (23)	96.9% (218)	3.1% (7)	83.5% (187)	16.5% (37)	89.7% (200)	10.3% (23)	73.3% (159)	26.7% (58)
Full-time	57.7% (240)	42.3% (176)	90.7% (411)	9.3% (42)	89.2% (405)	10.8% (49)	63.3% (286)	36.7% (166)	77.9% (352)	22.1% (100)	49.2% (221)	50.8% (228)
Part-time	63.6% (201)	36.4% (115)	93.0% (304)	7.0% (23)	76.2% (250)	23.8% (78)	57.3% (188)	42.7% (140)	66.7% (218)	33.3% (109)	38.0% (124)	62.0% (202)
Unemployed	55.0% (116)	45.0% (95)	91.7% (199)	8.3% (18)	73.4% (160)	26.6% (58)	54.4% (118)	45.6% (99)	62.5% (135)	37.5% (81)	36.4% (78)	63.6% (136)
χ^2	**5.289**		**2.185**		**71.070***		**51.936***		**56.406***		**80.135***	

*p < .05 with Bonferroni correction.

of unemployed participants reported that they had been the victim of theft in the past five years in comparison to approximately 43% of part-time workers, 37% of full-time workers, and 17% of retired persons. Almost 38% of unemployed participants indicated that they had been the victim of psychological abuse in the past five years compared to roughly 33% of participants who worked part-time, 22% who worked full-time, and 10% who were retired. Finally, approximately 64% of unemployed participants reported that they had experienced at least one form of victimization, compared to 62% of participants employed part-time, 51% of participants employed full-time, and 27% of participants who were retired. Contrary to expectations, employment status was not significantly associated with the telemarketing fraud measures.

Target Suitability and Victimization

Table 4.9 displays the results of the Chi-square test conducted to determine the association between income and telemarketing fraud targeting, as well as the five victimization variables[2]. It was hypothesized that income would be positively associated with property victimization and consumer fraud (hypothesis 5). Contrary to expectations, income was not significantly associated with theft, nor was it related to telemarketing fraud targeting and victimization. Income was significantly associated with physical abuse and psychological abuse. Significantly more individuals in the lower income category (less than $24,999) reported that they had experienced physical abuse and psychological abuse than individuals in the higher income category ($25,000 and above). Approximately 28% of individuals in the lower income group reported being physically

[2] Exploratory analyses were conducted to examine how other various breakdowns of income would influence the effect of income on the outcome measures. The findings were similar across models regardless of the way income was coded.

Table 4.9. Target Suitability (Income) by Victimization Type

	Telemarketing fraud targeting		Telemarketing fraud		Physical Abuse		Theft		Psychological Abuse		Overall Victimization	
	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)
Household income (0 = ≤ $25,000)	59.2% (106)	40.8% (73)	88.6% (164)	11.4% (21)	72.4% (134)	27.6% (51)	59.5% (110)	40.5% (75)	65.6% (120)	34.4% (63)	38.3% (70)	61.7% (113)
Household income (1 = ≥ $25,000)	57.6% (454)	42.4% (334)	91.2% (766)	8.8% (74)	86.0% (727)	14.0% (118)	63.0% (529)	37.0% (311)	75.8% (638)	24.2% (204)	48.1% (400)	51.9% (432)
χ^2	**0.154**		**1.165**		**20.476***		**0.799**		**8.116***		**5.825**	

*p < .05 with Bonferroni correction.

abused in the past five years compared to 14% of the higher income group. Of those in the lower income category, approximately 34% indicated that they had been psychologically abused in the past five years compared to 24% of those in the higher income group. Income was not significantly associated with overall victimization.

Bivariate analyses were also conducted to examine the bivariate association between the continuous age variable and victimization. Specifically, independent sample *t*-tests were used to determine if the average age (using the continuous age variable) significantly differed for individuals who experienced each of the outcomes compared to those who did not experience each outcome. As shown in Table 4.10, there were significant differences in age between victims and non-victims for three forms of victimization: physical abuse, theft, and psychological abuse. Similar to the results of analyses examining the bivariate relationship between the categorical age variable and victimization, the results suggest that, on average, individuals who experienced these three types of victimization were younger than those who did not experience these three types of victimization. Additionally, age was significantly related to overall victimization. On average, individuals who reported at least one form of victimization were younger than those who reported that they did not experience any form of victimization.

Proximity to Motivated Offenders and Victimization

Independent sample *t*-tests were performed to establish if the average number of household members and the average score on the neighborhood scale were significantly different for targets and victims compared to non-targets and non-victims. It was hypothesized that greater proximity to motivated offenders would be positively

Table 4.10. Independent Sample *t*-Tests for Continuous Age and Victimization Type

	Telemarketing fraud targeting		**Telemarketing fraud**		**Physical Abuse**		**Theft**		**Psychological Abuse**		**Overall Victimization**	
	No x□ (s)	Yes x□ (s)	No x□ (s)	Yes x□ (s)	No x□ (s)	Yes x□ (s)	No x□ (s)	Yes x□ (s)	No x□ (s)	Yes x□ (s)	No x□ (s)	Yes x□ (s)
Age	38.76 (19.39)	40.32 (19.48)	40.05 (19.41)	40.19 (20.08)	42.52 (19.60)	27.21 (12.66)	43.38 (20.35)	34.33 (16.43)	43.09 (19.80)	31.28 (15.52)	45.90 (20.16)	34.38 (16.94)
Total n	*671*	*479*	*1116*	*106*	*1037*	*192*	*780*	*445*	*909*	*313*	*584*	*626*
	***t* = -1.344**		***t* = -0.071**		***t* = 13.943***		***t* = 8.488***		***t* = 10.778***		***t* = 10.723***	

*p < .05 with Bonferroni correction.

Table 4.11. Independent Sample *t*-Tests for Proximity and Victimization Type

	Telemarketing fraud targeting		**Telemarketing fraud**		**Physical Abuse**		**Theft**		**Psychological Abuse**		**Overall Victimization**	
	No x□ (s)	Yes x□ (s)	No x□ (s)	Yes x□ (s)	No x□ (s)	Yes x□ (s)	No x□ (s)	Yes x□ (s)	No x□ (s)	Yes x□ (s)	No x□ (s)	Yes x□ (s)
Neighborhood Environment	8.79 (3.00)	9.27 (3.11)	8.89 (2.97)	10.17 (3.61)	8.74 (2.88)	10.33 (3.53)	8.68 (2.85)	9.55 (3.31)	8.61 (2.82)	10.11 (3.40)	8.39 (2.65)	9.57 (3.30)
Total n	*663*	*467*	*1092*	*106*	*1013*	*192*	*764*	*436*	*890*	*308*	*571*	*616*
	t* = -2.558		***t* = -4.157***		***t* = -5.886***		***t* = -4.600***		***t* = -6.961***		***t* = -6.812***	
Number of Household members	3.04 (1.45)	2.98 (1.39)	2.98 (1.42)	3.07 (1.46)	2.93 (1.41)	3.32 (1.41)	2.88 (1.44)	3.17 (1.36)	2.88 (1.42)	3.31 (1.39)	2.80 (1.43)	3.17 (1.39)
Total n	*669*	*480*	*1113*	*106*	*1035*	*191*	*781*	*441*	*907*	*312*	*583*	*624*
	***t* = 0.640**		***t* = -0.601**		***t* = -3.531***		***t* = -3.456***		***t* = -4.674***		***t* = -4.623***	

*p < .05 with Bonferroni correction.

associated with victimization (hypothesis 6). As shown in Table 4.11, the average score on the neighborhood environment scale for victims of all forms of victimization, telemarketing fraud targeting, and overall victimization was significantly higher than non-victims' scores on this scale. Also displayed in Table 4.11, victims of physical abuse had significantly more individuals residing in their household on average than non-victims. In addition, victims of theft, as well as victims of psychological abuse reported significantly more household members on average than those who were not the victims of theft and psychological abuse. The same pattern is observed for overall victimization with individuals who reported at least one form of victimization reporting a greater number of household members compared to non-victims. These findings provide fairly strong support for the sixth hypothesis with a consistent relationship between neighborhood environment and the outcome variables. Further, the number of household members was significantly associated with all forms of victimization except for the telemarketing fraud variables.

Control Variables and Victimization

To test the association between the two control variables and the six outcome variables, Chi-square tests for significance were conducted (see Table 4.12 for results). The only significant relationship was between sex and telemarketing fraud targeting. Significantly more males than females reported that they were targeted by fraudulent telemarketers. Approximately 49% of males reported that they were targeted by fraudulent telemarketers compared to approximately 38% of females. Race was not significantly associated with any of the outcomes.

Table 4.12. Control Variables by Victimization Type

	Telemarketing fraud targeting		Telemarketing fraud		Physical Abuse		Theft		Psychological Abuse		Overall Victimization	
	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)	No x□ (n)	Yes x□ (n)
Male	51.4% (199)	48.6% (188)	88.9% (367)	11.1% (46)	80.8% (336)	19.2% (80)	61.1% (253)	38.9% (161)	78.0% (323)	22.0% (91)	47.4% (194)	52.6% (215)
Female	61.8% (474)	38.2% (293)	92.6% (752)	7.4% (60)	86.3% (704)	13.7% (112)	65.2% (531)	34.8% (283)	72.5% (588)	27.5% (223)	48.8% (392)	51.2% (412)
χ^2	**11.397***		**4.867**		**6.348**		**2.020**		**4.375**		**0.190**	
Non-White	60.6% (228)	39.4% (148)	88.5% (346)	11.5% (45)	83.8% (330)	16.2% (64)	63.8% (252)	36.2% (143)	74.0% (290)	26.0% (102)	47.7% (185)	52.3% (203)
White	57.9% (445)	42.1% (324)	92.7% (766)	7.3% (60)	84.7% (703)	15.3% (127)	64.1% (529)	35.9% (296)	74.9% (618)	25.1% (207)	49.1% (401)	50.9% (416)
χ^2	**0.800**		**6.066**		**0.180**		**0.012**		**0.121**		**0.207**	

*p < .05 with Bonferroni correction.

Summary of Bivariate Results

This section presented the findings from bivariate analyses examining the association between age, lifestyles/routine activities, and victimization. It was hypothesized that age would significantly influence the lifestyles and routine activities of individuals (hypothesis 1). In order to test this hypothesis, the bivariate relationship between a categorical age variable and each of the lifestyles/routine activities variables was examined. This hypothesis received fairly strong support. Specifically, the three age groups differed significantly with regard to all of the lifestyles/routine variables except for the capable guardianship measure tapping into how connected participants feel they are to other people.

It was also hypothesized that older and younger individuals would be vulnerable to different types of victimization (hypothesis 2). More specifically, it was expected that older individuals would be more likely to be the targets and victims of telemarketing fraud compared to younger adults. Whereas, it was expected that younger adults would be more likely to be victims of psychological abuse, physical violence, and theft in comparison to older adults. This hypothesis received partial support, with younger adults being significantly more likely to be the victims of three types of victimization. As hypothesized, physical abuse and theft victimization were much more common among younger individuals compared to older individuals. Psychological abuse was also more common among individuals ages 18 to 29 and individuals ages 30 to 59 compared to individuals ages 60 and older. In terms of overall victimization, the findings indicate that a larger percentage of younger persons (18 to 29 years old) are victims compared to other age categories. Reinforcing these findings, bivariate analyses examining the relationship

between the continuous measure of age and victimization indicated that the average age of physical abuse, psychological abuse, and theft victims was younger than that of non-victims. Telemarketing fraud targeting and victimization, however, were not significantly associated with the categorical age variable nor the continuous age measure.

In addition, this section provided the results of tests investigating the bivariate relationship between L/RAT variables and victimization risk (hypotheses 3 through 6). The third hypothesis received little support at the bivariate-level with very few of the guardianship measures exhibiting significant associations with the outcome variables. Feeling connected to others was the only guardianship measure significantly associated with theft, while church attendance was significantly associated with psychological abuse and overall victimization. Socializing weekly with friends and family was not significantly associated with any of the outcome measures.

Full- and part-time employment were expected to increase exposure to motivated offenders, thus increasing the risk of physical abuse and theft (hypothesis 4). Unemployment was hypothesized to increase victimization risk for all forms of victimization. In comparison, retirement was expected to increase risk of telemarketing fraud targeting and victimization. This hypothesis received partial support. Employment status was not significantly related to telemarketing fraud and victimization, but was significantly associated with physical abuse, theft, psychological abuse, and overall victimization. Partially supporting this hypothesis, a larger percentage of unemployed workers reported victimization compared to the other three employment categories.

It was hypothesized that higher income would be associated with greater risk of property victimization and telemarketing fraud (hypothesis 5). This hypothesis did not

receive support at the bivariate level. Higher income was not significantly related to increased risk of telemarketing fraud and/or targeting, nor was it significantly related to theft. Income was significantly related to physical abuse and psychological abuse at the bivariate level with a larger percentage of individuals belonging to the lower income category reporting these two types of victimization.

The final hypothesis received relatively strong support at the bivariate level. Neighborhood environment was consistently associated with an increased risk of all four forms of victimization, telemarketing fraud targeting, and overall victimization. The number of household members was significantly associated with physical abuse, theft, psychological abuse, and overall victimization. In general, the bivariate findings suggest that the effects of lifestyle/routine activities variables vary across victimization type. For instance, the neighborhood environment scale (i.e. proximity to motivated offenders) was significantly associated with all five of the outcomes variables, whereas the effects of the other L/RAT variables varied across victimization type.

Multivariate Results

Although the bivariate results provide initial insight into how the L/RAT variables influence victimization risk, additional analyses are needed to tease apart the complex process underlying victimization. Specifically, multivariate analysis techniques allow one to determine if a relationship established at the bivariate level is real or if it is the result of another variable that influences both the independent variable and the outcome (Williams, 2009). That is, multivariate analyses estimate the effect of a given independent variable on an outcome while controlling for the effects of other variables included in the model. Given the ability to control for competing variables in the

multivariate framework, one can have greater confidence that the relationship detected is a real association between the independent and dependent variable.

As previously discussed, a series of multivariate logistic regression models were estimated to investigate the relationships between the independent variables (i.e. control variables and L/RAT variables) and the dependent variables[3] (i.e. telemarketing fraud targeting, telemarketing fraud victimization, physical abuse victimization, theft victimization, and psychological abuse victimization). For each of the types of victimization, two multivariate logistic regression models were estimated. The first model included all of the lifestyles/routine activities variables, control variables, and a continuous measure of age as independent variables. In order to examine the effects of belonging to a particular age category on victimization risk, a second multivariate logistic regression model was estimated for each of the outcomes. In these models, each of the dependent variables were regressed on the lifestyles/routine activities variables, control variables, and dummy variables for age with the 18 to 29 age group excluded as the referent category.

Models were also estimated to examine the effects of the L/RAT variables (including age as a continuous measure) on overall victimization. First, a model was estimated predicting overall victimization for the entire sample. In order to explore whether the effects of the L/RAT variables on victimization risk vary across the lifecourse, age specific models were estimated that split the sample into the three age categories of interest (i.e. ages 18 to 29, 30 to 59, and 60 and older). The following

[3] Multicollinearity diagnostics were examined for all of the models estimated and the tolerance statistics, as well as variance inflation factors (VIFs) can be found in Appendix B. Tolerance statistics below .20 indicate multicollinearity (Menard, 2010). All of the tolerance statistics were above the .20 threshold suggesting that multicollinearity is not a concern in the models presented. All of the VIF values were below 4.0 further indicating that multicollinearity is not a problem in the models (Fisher & Mason, 1981).

sections will present the findings of the multivariate models for each form of victimization separately followed by the findings of the multivariate logistic regression models predicting overall victimization.

Telemarketing Fraud

Telemarketing fraud targeting. The findings of the logistic regression models predicting telemarketing fraud targeting are presented in Table 4.13. The second column of Table 4.13 displays the findings from the first logistic regression model including the continuous measure of age. Only age and neighborhood environment were significantly related to telemarketing fraud targeting. Specifically, the odds of a female reporting that she was targeted by fraudulent telemarketers are approximately 36% lower than the odds of a male, holding all else constant in the model. With regard to proximity to motivated offenders, individuals who reported living in disorganized neighborhoods are at a higher risk of being targeted by telemarketing fraud offenders. For every one-unit increase on the neighborhood environment scale, the odds of being targeted by a fraudulent telemarketer are multiplied by 1.054, holding all else constant.

The third column of Table 4.13 displays the findings from the second logistic regression model, which includes the dummy variables for age. The findings of the second model are consistent with the first model. Both sex and the neighborhood environment measure were the only significant variables in this model and the effects remained relatively similar to those of the first model. Given that age was not significantly related to telemarketing fraud targeting in either model, the findings do not provide support for hypothesis 2. The results also contradict hypothesis 3, 4, and 5. The measures of target suitability, capable guardianship, and exposure were not significant in

Table 4.13. Logistic Regression Predicting Telemarketing Fraud Targeting (n = 924)

	Model 1		Model 2	
	b(SE)	**OR**	**b(SE)**	**OR**
Control Variables				
Race (1 = White)	0.155 (0.152)	1.168	0.172 (0.153)	1.188
Sex (1 = female)	-0.445 (0.145)	0.641**	-0.463 (0.145)	0.629**
Target Suitability				
Household income (1 =$25,000+)	-0.023 (0.188)	0.977	-0.091 (0.191)	0.913
Age (continuous)	0.003 (0.006)	1.003	--	--
Age 30 – 59[a]	--	--	0.339 (0.176)	1.403
Age 60+[a]	--	--	-0.088 (0.320)	0.916
Capable Guardianship				
Socialize weekly (1 = yes)	0.243 (0.222)	1.275	0.302 (0.224)	1.352
Feel connected to others (1 = yes)	0.061 (0.241)	1.063	0.046 (0.242)	1.047
Attend church regularly (1 = yes)	0.103 (0.144)	1.109	0.099 (0.144)	1.104
Exposure				
Retired[b]	0.079 (0.263)	1.082	0.361 (0.297)	1.435
Unemployed[b]	0.250 (0.200)	1.284	0.325 (0.203)	1.383
Employed part-time[b]	-0.099 (0.185)	0.906	0.028 (0.193)	1.028
Proximity				
Number of household members	0.025 (0.055)	1.025	0.010 (0.056)	1.010
Neighborhood environment	0.053 (0.022)	1.054*	0.053 (0.022)	1.055*
Nagelkerke Pseudo- r^2	0.033		0.040	
-2 Log-Likelihood	1232.078		1227.459	

* < .05. **p < .01. ***p < .001.
[a] referent age 18-29.
[b] referent full-time employment.

either model. Neighborhood environment, however, was significantly related to telemarketing fraud targeting in the predicted direction in both models. Thus, there is partial support for hypothesis 6. The effect of the number of household members is in the predicted direction, but does not reach significance.

Telemarketing fraud victimization. The first model predicting telemarketing victimization suggests that the same variables that put one at risk for being targeted, also put one at risk for being victimized (see Table 4.14 for results). Like the two models for telemarketing fraud targeting, sex and neighborhood environment were the only variables in the model that are significantly related to telemarketing fraud victimization. As shown in the second column of Table 4.14, males are at a greater risk of being victims of telemarketing fraud schemes compared to females. The odds of a female being the victim of telemarketing fraud are approximately 37% lower than the odds of a male, holding all else constant. In addition, individuals living in neighborhoods that are in close proximity to potential offenders are at a significant risk of experiencing telemarketing fraud. For every one-unit increase on the neighborhood environment scale, the odds of being the victim of telemarketing fraud are multiplied by 1.121, holding all else constant.

The second model substitutes the continuous age variable with dummy variables for age (see the third column in Table 4.14 for results). Sex approached significance in this model ($p = .050$), whereas race demonstrated a significant relationship with telemarketing fraud victimization in the model ($p = .047$). The odds of a White individual being the victim of telemarketing fraud are approximately 39% lower than the odds of a non-White individual, holding all else constant in the model. Like the first model, neighborhood environment is positively associated with risk of telemarketing fraud victimization. For every one-unit increase on the neighborhood environment scale, the odds of being victimized by a telemarketer are multiplied by 1.122, controlling for all of the other variables in the model. Overall, the findings from the models predicting

Table 4.14. Logistic Regression Predicting Telemarketing Fraud Victimization (n = 977)

	Model 1		Model 2	
	b(SE)	**OR**	**b(SE)**	**OR**
Control Variables				
Race (1 = White)	-0.472 (0.244)	0.624	-0.488 (0.245)	0.614*
Sex (1 = female)	-0.465 (0.234)	0.628*	-0.460 (0.234)	0.631
Target Suitability				
Household income (1 =$25,000+)	-0.006 (0.303)	0.994	0.034 (0.308)	1.034
Age (continuous)	-0.002 (0.010)	0.998	--	--
Age 30 – 59[a]	--	--	-0.180 (0.299)	0.835
Age 60+[a]	--	--	0.045 (0.510)	1.046
Capable Guardianship				
Socialize weekly (1 = yes)	-0.014 (0.355)	0.986	-0.035 (0.358)	0.965
Feel connected to others (1 = yes)	-0.553 (0.339)	0.575	-0.558 (0.339)	0.572
Attend church regularly (1 = yes)	0.113 (0.241)	1.119	0.114 (0.241)	1.121
Exposure				
Retired[b]	0.428 (0.421)	1.534	0.271 (0.452)	1.311
Unemployed[b]	-0.288 (0.348)	0.749	-0.326 (0.352)	0.722
Employed part-time[b]	-0.418 (0.322)	0.658	-0.479 (0.333)	0.620
Proximity				
Number of household members	0.035 (0.093)	1.036	0.046 (0.094)	1.047
Neighborhood environment	0.114 (0.035)	1.121**	0.115 (0.035)	1.122**
Nagelkerke Pseudo- r^2	0.061		0.062	
-2 Log-Likelihood	568.530		568.078	

* < .05. **p < .01. ***p < .001.
[a] referent age 18-29.
[b] referent full-time employment.

telemarketing fraud victimization provide similar support for the hypotheses as the models predicting telemarketing fraud targeting. That is, there is partial support for hypothesis 6 and no support for hypotheses 2 through 5.

Physical Abuse

Consistent with the bivariate results, several of the L/RAT variables are significantly related to physical abuse (see Table 4.15). In the first model, the continuous age measure was significantly associated with physical abuse. For every year increase in age, the odds of being physically abused are reduced by 5%, holding all else constant in the model. In addition, one of the dummy variables for employment, reflecting exposure to motivated offenders, was significantly associated with increased risk of physical abuse. The odds of an unemployed individual being physically abused are approximately 2.19 times the odds of an individual who works full-time, holding all else constant in the model. Similar to the bivariate results, individuals who reside in greater proximity to motivated offenders as reflected by neighborhood social disorganization are at a higher risk of being physically abused. For every one-unit increase on the neighborhood environment scale, the odds of being a victim of physical abuse are multiplied by 1.13, holding all else constant. Finally, males are at an increased risk of experiencing physical abuse. The odds of a male being physically abused are roughly 1.53 times the odds of a female, holding all else constant.

The third column of Table 4.15 presents the findings from the second model predicting physical abuse, which includes dummy variables for age. Both of the dummy variables are significantly associated with physical abuse. Individuals ages 30 to 59 and 60 and above are at a lower risk of being victimized compared to the youngest age category. The odds of individuals between the ages of 30 and 59 being physically abused are approximately 67% lower than the odds of individuals between the ages of 18 and 29. The odds of individuals age 60 and above being the victim of physical abuse are

Table 4.15. Logistic Regression Predicting Physical Abuse (n = 982)

	Model 1		Model 2	
	b(SE)	OR	b(SE)	OR
Control Variables				
Race (1 = White)	0.172 (0.206)	1.188	0.162 (0.205)	1.176
Sex (1 = female)	-0.427 (0.197)	0.652*	-0.441 (0.196)	0.643*
Target Suitability				
Household income (1 =$25,000+)	-0.373 (0.232)	0.688	-0.397 (0.232)	0.672
Age (continuous)	-0.055 (0.010)	0.946***	--	--
Age 30 – 59[a]	--	--	-1.104 (0.251)	0.331***
Age 60+[a]	--	--	-1.785 (0.650)	0.168**
Capable Guardianship				
Socialize weekly (1 = yes)	0.281 (0.316)	1.325	0.263 (0.315)	1.300
Feel connected to others (1 = yes)	-0.401 (0.298)	0.670	-0.369 (0.298)	0.691
Attend church regularly (1 = yes)	0.173 (0.201)	1.189	0.136 (0.200)	1.146
Exposure				
Retired[b]	-0.180 (0.687)	0.835	-0.842 (0.735)	0.431
Unemployed[b]	0.786 (0.261)	2.194**	0.846 (0.258)	2.331**
Employed part-time[b]	0.381 (0.250)	1.464	0.461 (0.250)	1.586
Proximity				
Number of household members	-0.030 (0.075)	0.970	0.013 (0.074)	1.013
Neighborhood environment	0.122 (0.028)	1.130***	0.121 (0.028)	1.129***
Nagelkerke Pseudo- r^2	0.239		0.225	
-2 Log-Likelihood	730.029		739.481	

* < .05. **p < .01. ***p < .001.
[a] referent age 18-29.
[b] referent full-time employment.

approximately 83% lower than the odds of individuals between the ages of 18 and 29. Sex, unemployment, and neighborhood environment are also significant in the second model and their effects are similar to those reported for the first model predicting physical abuse.

Taken together, the results of the two models predicting physical abuse provide some support for the predictions outlined in hypothesis 2. Younger adults are at a greater risk of being victims of physical abuse compared to older adults. There is no support for hypothesis 3 and 5. The results are consistent with expectations related to unemployment outlined in hypothesis 4. Unemployment increases the risk of physical abuse victimization when compared to full-time employment. In comparison, there is partial support for hypothesis 6 with individuals living in more socially disorganized neighborhoods being at a greater risk of experiencing victimization.

Theft

Table 4.16 presents the findings of the multivariate logistic regression models predicting theft victimization. Age, retirement status, and neighborhood environment are significantly related to theft in the first model (see second column Table 4.16). Age is negatively associated with theft victimization. For every year increase in age, the odds of being the victim of theft are reduced by approximately 1%, holding all else constant. The dummy variable for retirement status is also negatively associated with theft victimization risk. The odds of a retired individual being the victim of theft are 50% lower than the odds of an individual who works full-time, holding all else constant. Consistent with the previous models predicting other forms of victimization, proximity as measured by neighborhood disorganization is positively associated with theft. For every one-unit increase on the neighborhood environment scale, the odds of being the victim of theft are multiplied by approximately 1.08, holding all else constant.

The results of the second model including dummy variables for age are presented in the third column of Table 4.16. Unlike the first model, the dummy variable for

Table 4.16. Logistic Regression Predicting Theft (n = 977)

	Model 1		Model 2	
	b(SE)	**OR**	**b(SE)**	**OR**
Control Variables				
Race (1 = White)	0.010 (0.152)	1.010	0.028 (0.152)	1.029
Sex (1 = female)	-0.188 (0.146)	0.829	-0.199 (0.146)	0.819
Target Suitability				
Household income (1 =$25,000+)	0.059 (0.190)	1.061	0.003 (0.193)	1.003
Age (continuous)	-0.014 (0.006)	0.986*	--	--
Age 30 – 59[a]	--	--	-0.160 (0.172)	0.852
Age 60+[a]	--	--	-1.068 (0.347)	0.344**
Capable Guardianship				
Socialize weekly (1 = yes)	-0.108 (0.221)	0.898	-0.071 (0.222)	0.931
Feel connected to others (1 = yes)	-0.374 (0.236)	0.688	-0.374 (0.237)	0.688
Attend church regularly (1 = yes)	-0.085 (0.146)	0.919	-0.086 (0.146)	0.918
Exposure				
Retired[b]	-0.693 (0.297)	0.500*	-0.417 (0.329)	0.659
Unemployed[b]	0.124 (0.197)	1.132	0.178 (0.199)	1.195
Employed part-time[b]	0.030 (0.180)	1.031	0.123 (0.188)	1.130
Proximity				
Number of household members	0.022 (0.055)	1.022	0.013 (0.055)	1.013
Neighborhood environment	0.076 (0.022)	1.079**	0.075 (0.022)	1.078**
Nagelkerke Pseudo- r^2	0.088		0.094	
-2 Log-Likelihood	1228.713		1224.384	

* < .05. **p < .01. ***p < .001.
[a] referent age 18-29.
[b] referent full-time employment.

retirement is not significantly associated with theft victimization. The dummy variable for the age group 60 and above is statistically significant and indicates that the odds of those in the oldest age category having something stolen from them are significantly lower than the odds of the youngest age category (i.e. ages 18 to 29). Specifically, the odds of an individual age 60 years old or older having something stolen from him or her

are approximately 66% lower than the odds of an individual between the ages of 18 and 29, holding all else constant. The neighborhood environment scale was also significant in this model.

As a whole, the results of the two models provide support for the hypothesized relationship between youth and risk of theft victimization (hypothesis 2). As with the prior models, the measures of capable guardianship were not significantly associated with theft, which contradicts the expectations outlined in hypothesis 3. There is partial support for hypothesis 4 with retirement significantly reducing the odds of being the victim of theft compared to full-time employment. Finally, there is partial support for hypothesis 6 with neighborhood environment being significantly related to theft victimization in the predicted direction.

Psychological Abuse

The results for the two models regressing psychological abuse on the independent variables are presented in Table 4.17. Sex, age, and neighborhood environment were significant predictors of psychological abuse in the first model (see second column in Table 4.17). Psychological abuse was the only form of victimization that females were at significantly greater risk than males. The odds of a female experiencing psychological abuse are approximately 1.69 times the odds of a male, all else constant. Similar to previous models for other types of victimization, the significance of the continuous age variable suggests that younger individuals are perceived as more suitable targets. For every additional year in age, the odds of being the victim of psychological abuse are reduced by approximately 3%, all else constant. As with the other models, neighborhood proximity to potential offenders is significantly associated with risk of psychological

Table 4.17. Logistic Regression Predicting Psychological Abuse (n = 977)

	Model 1		Model 2	
	b(SE)	**OR**	**b(SE)**	**OR**
Control Variables				
Race (1 = White)	0.131 (0.173)	1.140	0.133 (0.173)	1.142
Sex (1 = female)	0.523 (0.175)	1.687**	0.500 (0.174)	1.649**
Target Suitability				
Household income (1 =$25,000+)	-0.083 (0.209)	0.920	-0.138 (0.212)	0.871
Age (continuous)	-0.034 (0.007)	0.966***	--	--
Age 30 – 59[a]	--	--	-0.581 (0.195)	0.560**
Age 60+[a]	--	--	-1.747 (0.477)	0.174***
Capable Guardianship				
Socialize weekly (1 = yes)	-0.211 (0.246)	0.810	-0.176 (0.246)	0.839
Feel connected to others (1 = yes)	-0.274 (0.260)	0.760	-0.267 (0.260)	0.765
Attend church regularly (1 = yes)	-0.298 (0.170)	0.742	-0.318 (0.169)	0.727
Exposure				
Retired[b]	-0.112 (0.403)	0.894	-0.118 (0.436)	0.888
Unemployed[b]	0.334 (0.218)	1.396	0.396 (0.218)	1.486
Employed part-time[b]	0.045 (0.206)	1.046	0.148 (0.210)	1.160
Proximity				
Number of household members	0.076 (0.063)	1.079	0.091 (0.063)	1.095
Neighborhood environment	0.133 (0.025)	1.142***	0.131 (0.025)	1.140***
Nagelkerke Pseudo- r^2	0.181		0.176	
-2 Log-Likelihood	989.304		993.083	

* < .05. **p < .01. ***p < .001.
[a] referent age 18-29.
[b] referent full-time employment.

abuse. For every one-unit increase on the neighborhood environment scale, the odds of being the victim of psychological abuse are multiplied by 1.14, all else constant.

The last column in Table 4.17 displays the results of the second model predicting psychological abuse and incorporates dummy variables for age as predictors of this form of victimization. Both of the dummy variables for age are significant predictors in the

model. The odds of an individual between the ages of 30 and 59 being psychologically abused are approximately 44% lower than the odds of an individual between the age of 18 and 29, controlling for all of the other variables in the model. The odds of an individual age 60 or older being psychologically abused are approximately 83% lower than the odds of an individual between the ages of 18 and 29, holding all else constant in the model. In addition to the dummy variables for age, sex and neighborhood environment were also significant in this model. Their effects were very similar across the two models. The odds of a female being psychologically abused are approximately 1.65 times the odds of a male, holding all else constant in the model. For every one-unit increase on the neighborhood environment scale, the odds of experiencing psychological abuse are multiplied by 1.14, all else constant.

The results of the two models indicate support for the hypothesized relationship between youth and psychological abuse described in hypothesis 2, as well as partial support for hypothesis 6. Neighborhood environment was significantly related to this form of victimization and the relationship was in the expected direction. Household income, the three capable guardianship measures, employment status (exposure), number of household members (proximity), and race were not significantly related to psychological abuse.

Summary of Multivariate Results for Each Type of Victimization

This section presented the findings of the multivariate analyses examining the effects of the L/RAT variables on the risk of experiencing multiple types of victimization (see Table 4.18 for summary of support for hypotheses). With regard to the models examining the effects of the L/RAT variables on each type of victimization, the

multivariate results reinforce the bivariate findings, which suggested that there is some degree of variation in the effects of the L/RAT variables across victimization type. Similar to the bivariate results, the most consistent finding was the positive effect of neighborhood environment on victimization risk, regardless of victimization type. This finding provides some support for the hypothesis that greater proximity to motivated offenders is related to increased risk of victimization (hypothesis 6). However, the other proximity measure included in the analyses, the number of household members, was not significantly associated with any of the five types of victimization examined in the current study.

Table 4.18. Summary of Support for Hypotheses at the Multivariate Level

Hypothesis 2	**Older adults are at a greater risk of telemarketing fraud victimization and targeting compared to younger adults. Younger adults are at a greater risk of being the victim of other forms of victimization (i.e. physical abuse, psychological abuse, and theft).**
Hypotheses 3	For individuals of all age groups, capable guardianship reduces the risk of all forms of victimization.
Hypothesis 4	*Greater exposure to motivated offenders (part- and full-time employment) increases the risk of physical abuse and theft victimization. Retirement and unemployment increases the risk of telemarketing fraud and targeting. Unemployment increases the risk of all forms of victimization.*
Hypothesis 5	Higher income increases the risk of property victimization (i.e. theft) and consumer fraud (i.e. telemarketing fraud).
Hypothesis 6	**Greater proximity to motivated offenders (i.e. higher number of household members and increased levels of neighborhood social disorganization) increases the risk of all types of victimization.**

*Bolded received partial support; italicized received mixed support.

Also consistent with bivariate findings, age was negatively associated with physical abuse, theft, and psychological abuse. The findings related to these three forms of victimization provide support for the hypothesized relationship between youth and victimization outlined in hypothesis 2. It was also hypothesized that old age would increase the odds of telemarketing fraud targeting and victimization. This portion of hypothesis six was not supported, thus there is only partial support for hypothesis 2. The findings from the first set of models suggest that as age increases, victimization decreases. The second set of models, which substitute the continuous age measure with dummy variables, suggest that the effect of age varies across these three forms of victimization.

The risk of physical and psychological abuse for individuals ages 30 to 59 and individuals ages 60 and above are significantly lower than that of individuals ages 18 to 29. One can also see how the risk of these two types of victimization consistently becomes lower as one ages. For example, the odds of an individual between the ages of 30 and 59 being physically abused are approximately 67% lower than the odds of an individual between the ages of 18 and 29. The difference is even more pronounced for the oldest age group where the odds of an individual age 60 or older being physically abused are approximately 83% lower than the odds of an individual between the ages of 18 and 29. In comparison, the results from the model predicting theft indicate that the odds of being the victim of theft for the age 30 to 59 group is not significantly different from the odds of individuals belonging to the 18 to 29 age group. Only the odds of those 60 and older are significantly lower than the youngest age group with regard to theft.

The effects of exposure also varied across victimization type. Retirement was significantly associated with a reduced risk of theft in the first model predicting theft, yet this effect disappeared once the dummy variables for age category were introduced in the second model. Unemployment was associated with an increased risk of physical abuse, but not associated with any other form of victimization. Consequently, there was mixed support for hypothesis 4. There was no support for hypothesis 3 and 5 in any of the models. Guardianship and household income were not significantly associated with the outcome measures. In general, very few of the independent variables included in the analyses were significantly associated with the types of victimization examined. Further, with the exception of the neighborhood environment scale, the effects of the L/RAT variables varied across victimization type.

Overall Victimization

As previously discussed, a multivariate model was estimated to examine the effects of the L/RAT variables on overall victimization risk for the full sample. Only two of the L/RAT variables included in the multivariate model were related to overall victimization (see Table 4.19 for results). Consistent with the other multivariate models, increased proximity to motivated offenders in one's neighborhood environment was associated with an increased risk of victimization. For every one-unit increase on the neighborhood environment scale, the odds of experiencing a victimization are multiplied by 1.13 holding all else constant in the model. Also similar to prior models, age is negatively associated with victimization. For each additional year in age, the odds of victimization are reduced by approximately 2%, holding all else constant.

Table 4.19. Logistic Regression Predicting Overall Victimization for the Full Sample (n = 967)

	b(SE)	OR
Control Variables		
Race (1 = White)	0.052 (0.153)	1.054
Sex (1 = female)	-0.024 (0.148)	0.977
Target Suitability		
Household income (1 =$25,000+)	-0.135 (0.196)	0.873
Age (continuous)	-0.021 (0.006)	0.979**
Capable Guardianship		
Socialize weekly (1 = yes)	-0.037 (0.225)	0.964
Feel connected to others (1 = yes)	-0.147 (0.248)	0.864
Attend church regularly (1 = yes)	-0.184 (0.145)	0.832
Exposure		
Retired[a]	-0.426 (0.269)	0.653
Unemployed[a]	0.129 (0.183)	1.138
Employed part-time[a]	0.237 (0.202)	1.268
Proximity		
Number of household members	0.051 (0.056)	1.052
Neighborhood environment	0.123 (0.024)	1.130***
Nagelkerke Pseudo- r^2	0.145	
-2 Log-Likelihood	1223.902	

* < .05. **p < .01. ***p < .001.
[a] referent full-time employment.

To explore the relationship between the L/RAT variables and overall victimization risk across age, a series of multivariate logistic regression models were estimated for three age groups: individuals ages 18 to 29, individuals ages 30 to 59, and individuals ages 60 and older. Table 4.20 presents the results of the multivariate logistic regression models predicting overall victimization for the three age groups. The results suggest that the L/RAT variables influence victimization risk differently across the three groups. The second column in Table 4.20 displays the results of the model predicting overall victimization for the youngest age group, individuals between the ages of 18 and 29. For the youngest group, part-time employment and neighborhood environment are

Table 4.20. Logistic Regression Models Predicting Overall Victimization for Age Groups

	Age 18 – 29 (n = 457)		Age 30 – 59 (n = 362)		Age 60+ (n = 148)	
	b(SE)	OR	b(SE)	OR	b(SE)	OR
Control Variables						
Race (1 = White)	0.175 (0.217)	1.191	0.113 (0.251)	1.119	-0.832 (0.539)	0.439
Sex (1 = female)	-0.192 (0.218)	0.825	0.060 (0.244)	1.062	0.490 (0.450)	1.632
Target Suitability						
Household Income (1 = $25,000)	-0.235 (0.249)	0.791	-0.430 (0.527)	0.650	0.323 (0.544)	1.381
Capable Guardianship						
Socialize weekly (1 = yes)	0.429 (0.351)	1.535	-0.048 (0.330)	0.953	-1.470 (0.666)	0.230*
Feel connected to others (1 = yes)	-0.292 (0.344)	0.747	-0.151 (0.428)	0.860	0.783 (0.902)	2.188
Attend church regularly (1 = yes)	-0.206 (0.220)	0.814	-0.069 (0.231)	0.933	-0.544 (0.434)	0.580
Exposure						
Retired[a]	--	--	-0.327 (0.413)	0.721	-0.947 (0.558)	0.388
Unemployed[a]	0.296 (0.286)	1.345	0.504 (0.326)	1.655	-1.726(1.252)	0.178
Employed part-time[a]	0.515 (0.250)	1.674*	-0.437 (0.366)	0.646	-1.375 (0.925)	0.253
Proximity						
Number of household members	0.040 (0.080)	1.041	0.047 (0.086)	1.048	-0.102 (0.231)	0.903
Neighborhood Environment	0.130 (0.032)	1.138***	0.109 (0.042)	1.116**	0.144 (0.086)	1.154
Nagelkerke pseudo-r	0.082		0.063		0.132	
-2 Loglikelihood	562.589		484.331		152.670	

*p < .05. **p < .01. ***p <.001. [a] referent full-time employment.

related to an increased risk of victimization. Specifically, the odds of an individual between the ages of 18 and 29 who is employed part-time being victimized are approximately 1.7 times the odds of an individual in this age group who is employed full-time, holding all else constant. Additionally, for every one-unit increase on the neighborhood environment scale, the odds of an individual between the age of 18 and 29 being victimized are multiplied by approximately 1.14, holding all else constant.

The third column in Table 4.20 presents the results of the model predicting victimization for individuals between the ages of 30 and 59. Only one variable was significantly related to victimization risk for this age group, neighborhood environment. This finding indicates that higher levels of social disorganization in one's neighborhood increase the risk of victimization for this age group. For every one-unit increase on the neighborhood scale, the odds of experiencing any form of victimization are multiplied by approximately 1.12, holding all else constant. Finally, the fourth column of Table 4.20 displays the findings for the model predicting overall victimization for the oldest age group (i.e. ages 60 and older). The capable guardianship measure indicating whether an individual socialized weekly with family and friends was the only significant variable in the model. As hypothesized, this guardianship measure was negatively associated with victimization risk. The odds of an individual in this age category who socialized weekly being victimized were approximately 77% lower than the odds of an individual in this age category who did not socialize weekly, holding all else constant in the model.

Summary of Multivariate Results for Overall Victimization

This section discussed the results of models predicting overall victimization for the entire sample, as well as models predicting overall victimization for three different

age groups (i.e. ages 18 to 29, 30 to 59, and 60 and older). The findings of the first model exploring victimization risk for the full sample are similar to the findings from the multivariate models predicting each form of victimization separately. That is, age (target suitability) was negatively associated with overall victimization risk and the neighborhood environment scale (proximity) was positively associated with overall victimization risk. The findings from the age-specific models, however, suggest that the effects of the L/RAT variables on victimization risk vary across age category. Part-time employment, compared to full-time employment, and neighborhood environment both increase victimization risk for individuals between the ages of 18 and 29. In comparison, only neighborhood environment was significantly associated with increased risk of overall victimization for individuals between the ages of 30 and 59. Moreover, the only variable significantly related to victimization risk for adults ages 60 and above was socializing weekly with friends and family, an indicator of capable guardianship. This finding stands in comparison to the results of the models predicting individual forms of victimization for the entire sample and provides partial support for hypothesis 3. In particular, socializing every week with friends and family was associated with a reduced risk of victimization for older adults.

CHAPTER 5

DISCUSSION AND CONCLUSION

The current research sought to address identified theoretical weaknesses in the elder abuse literature, as well as expand the focus of criminological theory to the victimization experiences of older adults. More specifically, it built upon the existing lifestyles/routine activities theory and elder abuse research by situating risk factors derived from both bodies of literature within the framework of L/RAT. One of the predominant goals of this study was to examine how age influences overall victimization risk, as well as affects the risk of experiencing distinct forms of victimization. Two of the forms of victimization explored in the current study, psychological abuse and telemarketing fraud, are not commonly examined in the criminological literature. Further, there was a focus on identifying whether L/RAT risk factors uniformly influenced victimization risk across victimization type, as well as whether specific factors may be more important at one stage of the lifecourse versus another.

Several hypotheses were tested using various bivariate and multivariate analyses techniques. For each form of victimization, two multivariate logistic regression models were estimated. The first model included a continuous measure of age in years and the second model substituted categorical variables for the continuous age measure. The dummy variables allowed for the comparison of victimization risk for three age groups: ages 18 to 29, ages 30 to 59, and ages 60 and older. In addition, a model was estimated predicting overall victimization risk for the full sample. Finally, age-specific models were estimated for the three age groups to explore whether specific L/RAT variables were more salient at different points in the lifecourse. The following sections will review

the key findings gleaned from the analyses, as well as consider the implications of these findings for theoretical development, policy, and practice. The final sections of this chapter will discuss the limitations of the current study, as well as directions for future research and conclusions.

Overview of Results

The focal point of this study was to examine the effect of age on victimization risk with an eye towards determining whether older adults were at a greater risk for particular forms of victimization. In order to understand why older and younger adults may be differentially at risk for specific forms of victimization, the L/RAT framework was applied to the victimization experiences of a sample of younger and older adults. The following sections will provide an overview and discussion of the key findings for each of the L/RAT concepts and control variables as they relate to the various outcome measures.

Age and Lifestyles/Routine Activities

According to L/RAT, age has a considerable impact on individuals' lifestyles and routine activities. As previously discussed in Chapter 2, fear of crime is expected to increase with age, which is predicted to increase the use of self-isolation as a protective strategy (Hindelang, Garofalo, & Gottfredson, 1978). In addition, the development of cognitive and health impairments with aging are expected to significantly limit the activities and lifestyles of older adults so that their major daily activities are centered around their homes. To explore the validity of these predictions, the current study performed exploratory bivariate analyses examining the relationships between a three-category age variable (i.e. ages 18 to 29, ages 30 to 59, and ages 60+) and the various

L/RAT variables. It was hypothesized that the lifestyles and routine activities of older adults would be significantly different from those of younger adults.

The bivariate results suggested that older and younger adults were significantly different in terms of all of the lifestyles/routine activities measures with the exception of one of the capable guardianship measures (i.e. feel connected to others). These findings seem to suggest that, as expected, age directly influences one's lifestyle behaviors. It is possible, however, that intervening mechanisms associated with aging proposed by the L/RAT framework, such as fear of crime, decreased mobility, physical frailty, may lead older adults to engage in lifestyles that are more restricted compared to younger adults. As will be discussed in the limitations section, the current study was unable to explore the possibility of these types of mediating relationships because direct measures of fear of crime, physical health problems, and cognitive functioning were unavailable in the current dataset.

Target Suitability

One of the primary goals of the current research was to examine how age influences victimization risk. Based on the L/RAT and elder abuse literature, age was used as a proxy measure for target suitability. The elder abuse literature suggests that older adults may be viewed as more suitable targets for crime, especially property offenses, due to common misconceptions and stereotypes associated with old age. As discussed in chapter two, fraud offenders may perceive older individuals as being relatively affluent, physically weak, and less cognitively acute compared to the young. Thus, it was hypothesized that older adults, because of the natural process of aging, would be more likely to be the targets and victims of telemarketing fraud compared to

younger adults. Additionally, it was expected that younger adults would be more likely to experience other forms of victimization.

The hypothesized relationship between age and telemarketing fraud did not receive empirical support in the current study. Age was not significantly related to telemarketing fraud targeting nor victimization. The consumer fraud literature is characterized by mixed findings with regard to the relationship between age and fraud victimization risk. Several studies suggest that older adults are at a greater risk of being victimized by fraudulent telemarketers compared to younger adults (AARP, 1996; AARP, 1999; Pak & Shadel, 2011). Some scholars suggest that the elderly are more vulnerable because they are more isolated than younger adults and the telemarketer provides a source of social interaction. For instance, one study established that older persons were more likely to indicate that they would listen to a telemarketer compared to younger persons (Lee & Geistfeld, 1999). Age, however, did not significantly affect the number of times individuals sent money to a telemarketer nor did it significantly influence individuals' attitudes towards telemarketers (Lee & Geistfeld, 1999).

A number of studies find that younger adults are more likely to be fraud victims compared to their older counterparts (Anderson, 2004; Kerley & Copes, 2002; Titus, Heinzelmann, & Boyle, 1995; Van Wyk & Mason, 2001). Titus and colleagues (1995) propose that the elderly may be incorrectly "stereotyped" as easy targets for fraud and that older adults may have "gotten smarter" when it comes to recognizing fraud schemes (p. 66). Moreover, they suggest that younger persons may be more vulnerable to consumer fraud because they are generally less likely to have high incomes and that their

relatively limited life experience may make it harder for them to identify fraud (Titus, Heinzelmann, & Boyle, 1995).

Recent research suggests that the relationship between age and fraud victimization may be mediated by routine purchasing/consumer behaviors (see Pratt, Holtfreter, & Reisig, 2010). That is, older individuals may be less likely to engage in consumer behaviors such as online shopping or making purchases over the telephone that can increase their exposure to risky purchasing situations. Research also has indicated that context specific low self-control is a risk factor for consumer fraud victimization. In particular, scholars have suggested consumers with low financial self-control engage in riskier consumer behaviors (i.e. make risky investments, participate in get rich quick schemes) that ultimately expose them to greater risk of consumer fraud (Holtfreter, Reisig, Piquero, & Piquero, 2010; Holtfreter, Reisig, & Pratt, 2008).

The hypothesis that younger individuals would be at a greater risk of experiencing other forms of victimization was supported. The continuous measure of age was significantly and negatively associated with physical abuse, theft, and psychological abuse. Moreover, age was significantly and negatively associated with overall victimization risk. That is, as age increased the risk of experiencing these forms of victimization and overall victimization risk decreased. The models including categorical measures of age generally reinforced the findings of the models including the continuous age measure. That is, individuals between the ages of 30 and 59, as well as age 60 or older were at a lower risk of experiencing both physical abuse and psychological abuse compared to the youngest age group (ages 18 to 29). Interestingly, only individuals in the age 60 and above category were significantly less likely to be victims of theft

compared to individuals ages 18 to 29. The risk of individuals in the age 30 to 59 category experiencing theft were not significantly different from the risk of individuals ages 18 to 29.

Overall, the current results are in line with past research indicating that younger persons are at a higher risk of being victimized compared to older persons (Bachman & Meloy, 2005; Faggiani & Owens, 1999; Fox & Levin, 1991; Klaus, 2005). This suggests that older individuals are viewed as less suitable targets for victimization. Clarke and colleagues (1985) propose that the elderly may be viewed as less attractive for a number of reasons including offenders' beliefs that the elderly are less likely to carry valuables on their person when in public and offenders' "moral prohibitions" against victimizing elders (p. 7). Since the current study only assessed victimization, not offending and offenders' perceptions, these explanations could not be tested.

Similar to past research, the current study used household income as an additional measure of target suitability. It was hypothesized that income would be positively related to property victimization, specifically theft and telemarketing fraud victimization. Although the bivariate results suggested a relationship between income and particular forms of victimization, this hypothesis received no support at the multivariate level. Income was not significantly associated with any of the outcome measures in the multivariate analyses. Measures of target suitability in general, and income as an indicator of target suitability in particular, have received inconsistent support in the L/RAT literature as risk factors for victimization compared to other elements of the L/RAT framework (Cohen, Kluegel, & Land, 1981; Meier & Miethe, 1993; Miethe & Meier, 1990).

Capable Guardianship

Capable guardianship was expected to reduce victimization risk for all forms of victimization. Guardianship was measured by assessing three different aspects of an individual's social support network. Specifically, participants indicated whether they felt connected to other people, attended church regularly, and associated with friends and family on a weekly basis. It was assumed that individuals who engaged in these activities would be subject to greater levels of guardianship. Contrary to expectations, none of the guardianship measures were found to be significantly associated with victimization risk in the offense-specific multivariate logistic regression models. In comparison to the offense-specific models, one measure, socializing weekly with friends and family, proved to be significant in the age-specific model examining overall victimization risk for individuals age 60 and above. As hypothesized, this item was negatively associated with overall victimization risk for this age group. Individuals ages 60 and older who socialized weekly with friends and family were less likely to be victimized compared to individuals ages 60 and above who did not socialize weekly with their friends and family. This was the only significant relationship in this model and suggests that socializing weekly with others does serve to protect older individuals from victimization.

Generally, support for the protective effect of guardianship is weak in the current study. As previously discussed in chapter 2, this particular element of L/RAT has received inconsistent empirical support compared to other elements of L/RAT such as exposure and proximity to motivated offenders (Cohen, Kluegel, & Land, 1981; Massey, Krohn, & Bonati, 1989; Meier & Meithe, 1993). One possible explanation for the non-significance of guardianship in the current study relates to the way this concept was

measured. Although several past studies have measured guardianship by employing items that tap into social support, it may be that these items are not truly capturing the concept as it is outlined in L/RAT.

Social guardians traditionally have been identified as individuals who are in close physical proximity to the target and able to intervene in the event that a victimization may occur (Felson, 2001). Levels of social support do not necessarily translate into increased guardianship if the guardian, in this case another individual, is not available, willing, and capable of intervening on the victim's behalf in the event of a victimization. The possibility remains that individuals embedded in supportive social networks may not have increased levels of guardianship if members of their social support network are not physically present to prevent a victimization from occurring. As previously discussed, the current research does seem to indicate that social support is an important predictor of general victimization risk for older adults. The finding that social support functions as a protective factor among this age group is consistent with findings in the elder abuse literature (Acierno et al., 2010; Bonnie & Wallace, 2003; Vandecar-Burdin & Payne, 2010).

Exposure to Motivated Offenders

According to L/RAT, individuals who participate in a greater number of nonhousehold activities are at a greater risk of being victimized compared to individuals who spend the bulk of their time engaged in activities in their home. Greater levels of nonhousehold activity are expected to increase exposure to potential offenders, thereby increasing victimization risk. The elder abuse literature, however, suggests that individuals who spend more time in the home may be at an increased risk of experiencing

fraud. The current study measured employment status to assess individuals' levels of nonhousehold activity. It was hypothesized that the statuses of unemployment and retirement would be associated with a greater risk of telemarketing fraud, while part- and full-time employment were hypothesized to increase the risk of other forms of victimization. Furthermore, unemployment was expected to increase risk of all forms of victimization.

This hypothesis received mixed support. Employment status was not significantly associated with telemarketing fraud targeting nor was it significantly related to telemarketing fraud victimization. Employment status also failed to reach significance in the models predicting psychological abuse. In comparison, unemployment was significant in both multivariate models predicting physical abuse. The unemployed were significantly more likely to experience physical violence compared to individuals employed full-time. From a L/RAT perspective, this finding is not entirely surprising. Cohen and Felson (1979) and Hindelang and colleagues (1978) suggest that the unemployed share many of the same demographic characteristics of offenders, thus are likely to have increased exposure and be in close proximity to motivated offenders. Unemployment did not surface as a risk factor in models predicting overall victimization, which highlights the importance of examining specific forms of victimization. This effect would have been masked had the current study only examined overall victimization risk. Interestingly, in the age-specific models, part-time employment emerged as a significant predictor of overall victimization risk for individuals between the ages of 18 and 29. Individuals ages 18 to 29 who work part-time were at a greater risk of experiencing victimization compared to those in this age category who work full-time.

Also consistent with predictions from L/RAT, retirement appeared to be protective in the first model predicting theft victimization. Specifically, the odds of a retired person having something stolen from them were 50% lower than the odds of a full-time employee. When the continuous age variable was replaced by dummy variables for age in the second theft model, the effect of retirement status was reduced to non-significance. In the second model, the age 60 or older dummy variable was significantly and negatively related to theft victimization. This finding seems to indicate that it was actually older age contributing to lower theft victimization risk in the first model, not retirement status. Without controlling for older age in the first model, it appears that the effect of retirement was spurious and was reflecting the effect of being age 60 or above. As discussed in relation to target suitability, age may be indirectly affecting victimization risk through its effects on mobility, physical health, and mental ability.

Collectively, the findings with regard to exposure indicate that it is important for researchers to consider how employment status as an indicator of exposure may have a different impact on victimization risk depending upon the type of victimization one is examining. Unemployment was a risk factor for physical abuse, but not for any other forms of victimization included in the analyses. Moreover, the effect of employment status appears to vary throughout the lifecourse. Given that part-time employment status was a risk factor for overall victimization among the youngest age group, one can conjecture that it may be the nature and type of employment that younger people engage in that contributes to higher victimization risk. Younger persons may be involved in riskier part-time professions that increase their exposure and proximity to motivated offenders.

Proximity to Motivated Offenders

Lifestyles/routine activities theory proposes that individuals who reside in close proximity to a large pool of potential offenders are at a greater risk of being victimized. For the current study, two measures of proximity were included in the analyses. First, a neighborhood environment scale tapping into the level of social disorganization in each individual's neighborhood was included as an indicator of proximity. Second, the current study included a continuous variable indicating the number of individuals residing in each participant's household as a measure of proximity to motivated offenders. Employing the number of household members in one's residence as an indicator of proximity stands in comparison to past L/RAT research, which has often conceptualized shared living arrangements as protective and used this type of measure to tap into capable guardianship. Elder abuse scholars, however, have argued that cohabiting is a risk factor for elder abuse and many L/RAT researchers have recognized that members of one's household can fit into the category of motivated offenders. Therefore, in the current study it was hypothesized that both measures of proximity would be positively associated with all forms of victimization, as well as overall victimization risk. This hypothesis received partial support.

The number of household members failed to be significantly related to any of the outcome measures. Although not significant, the direction of the relationship between the number of household members and overall victimization risk for individuals age 60 and older suggests that shared living arrangements may actually reduce victimization among older adults. This finding is inconsistent with results reported in the elder abuse literature (Lachs et al., 1997; Paveza et al., 1992; Pillemer & Finkelhor, 1988; Pillemer &

Suitor, 1992). This finding may be related to the way overall victimization was measured. Specifically, the elder abuse literature suggests that different forms of victimization may be associated with specific risk factors (see Jackson & Hafemeister, 2011). Therefore, it is likely that household composition influences victimization risk differently for specific forms of victimization. The current study was unable to estimate age-specific models for each type of victimization due to the small number of older adults who experienced each type of victimization. By collapsing all forms of victimization together to form an overall victimization measure, the current research could not identify offense-specific risk factors for each age group and may have masked important differences that exist.

In comparison to the household composition measure, the other indicator of proximity to motivated offenders, the neighborhood environment scale, was the most consistent predictor of victimization. Increased levels of social disorganization were significantly associated with higher victimization risk in every model estimated with the exception of the model predicting overall victimization risk for individuals ages 60 and older. These findings are consistent with past research that highlights the importance of examining neighborhood context when considering victimization risk (Lynch & Cantor, 1992; Miethe & Meier, 1990; Miethe & McDowall, 1993; Rountree & Land, 1996; Sampson & Wooldredge, 1987). Miethe and McDowall (1993) point out that indicators of social disorganization (i.e. graffiti, unsupervised youth, etc.) may serve as signals to motivated offenders that attractive targets are easily accessible and that intervention will be unlikely given the obvious signs of low levels of informal social control in the neighborhood. Thus, victimization risk is not only affected by individual behaviors and

lifestyles, but also by the lifestyles and routine activities of other individuals residing in close proximity to one another.

Interestingly, the measure of social disorganization was also related to telemarketing fraud targeting. The consumer fraud literature in general and the telemarketing fraud literature in particular, typically do not include measures of neighborhood environment when examining consumer vulnerability to fraud. However, the current study suggests that fraudulent telemarketers may target specific neighborhoods with residents of socially disorganized neighborhoods being at a greater risk of being targeted. Studies of telemarketing fraud schemes and offenders provide some clues as to why neighborhood environment influences victimization risk within this context.

Specifically, research indicates that telemarketers do not dial telephone numbers at random, but instead often use "mooch lists" purchased from a variety of sources including other criminal telemarketing organizations (Shover, Coffey, & Saunders, 2004, p. 64). These lists typically include the names of individuals who have previously been successfully defrauded. The consumer fraud literature further suggests that the poor, who often reside in disorganized communities, are more likely to fall victim to fraud because fraudsters often make offers that promise to quickly improve the victim's financial situation (Holtfreter, Reisig, & Blomberg, 2006; Lee & Geistfeld, 1999). Consequently, it may be that residents of disorganized communities are more likely to be targeted because they have fell victim to schemes in the past, thus their names are likely to be listed on a "mooch list."

Control Variables and Victimization Risk

The demographic variables included in the models exhibited several significant relationships. First, sex was a significant predictor of all of the outcome variables except for theft and overall victimization. Males were at a greater risk of being targets of telemarketing fraud. Although sex was significantly associated with telemarketing fraud victimization in the first model, it only approached significance when dummy variables for age were introduced in the second model. The direction of the relationship, however, remained the same with males being at a greater risk of experiencing this form of victimization. These results are consistent with past research that indicate that males are more likely to be targets and victims of consumer fraud compared to females (Holtfreter, Reisig, & Blomberg, 2006; Holtfreter, Reisig, & Pratt, 2008).

The current study also found that males had a higher risk of being physically abused compared to females. This finding is consistent with the broader literature on victimization indicating that males are more likely than females to be the victims of violent crime, with the exception of sexual assault and rape (see Felson, 2002; Truman & Planty, 2012). Finally, females were found to be at a greater risk of experiencing psychological abuse. Although psychological abuse is rarely examined in the criminological literature, this finding is consistent with past research examining the prevalence of psychological/emotional abuse among elders (Tatara, 1998). Further, the intimate partner violence literature suggests that women are more likely than men to experience psychological abuse in the form of coercive control in their intimate relationships (see Stark, 2007). The data used in the current research was not able to identify the relationship between victims and offenders, yet it is reasonable to suggest

that a proportion of the victimizations captured, including psychological abuse, were perpetrated by intimate partners.

Race was significantly related to telemarketing fraud victimization when dummy variables for age were included in the model. Specifically, non-Whites were at a greater risk of being victimized by fraudulent telemarketers compared to Whites. This finding seems to be inconsistent with past research. Studies that group multiple forms of fraud together under the broad category of consumer fraud tend to find no significant effects of race on vulnerability (Lee & Soberon-Ferrer, 1997) and victimization risk (Kerley & Copes, 2002; Schoepfer & Piquero, 2009). Yet, results from Schoepfer and Piquero's (2009) research indicate that it is important to examine risk factors for different forms of consumer fraud separately with their study demonstrating that risk and protective factors vary across types of fraud. There is very little research examining telemarketing fraud specifically and what literature that exists does provide some insight into why non-Whites may be more susceptible to telemarketing fraud victimization. Specifically, Lee and Geistfeld (1999) found that non-Whites held more positive attitudes toward telemarketers, as well as were more likely to send money to a telemarketer compared to Whites.

Implications for Theoretical Development

The findings of the current study have several implications for the development of the L/RAT perspective, as well as theoretical development in the elder abuse literature. First, it is important to note that very few of the variables included in the current research were significantly associated with each type of victimization for the full sample, and even fewer were significant in the age-specific models predicting overall victimization. This

would seem to suggest that the L/RAT framework does not adequately account for victimization among this sample of older and younger adults; however, this conclusion may be premature. Given that the L/RAT framework is one of the most commonly used theoretical perspectives in victimology and has received substantial empirical support, it seems more reasonable to suggest that theoretical refinement is needed.

The strongest and most consistent finding of the current study was the relationship between the proximity variable tapping into neighborhood social disorganization and victimization risk. Consistent with past studies that have argued for the importance of considering neighborhood context within the L/RAT framework (see Sampson, 1987; Sampson & Wooldredge, 1987), the current research suggests that L/RAT framework could be improved by the integration of concepts and propositions derived from social disorganization theory. Social disorganization theory draws attention to the importance of place when explaining crime. This theory attempts to explain why crime is more likely to occur in some neighborhoods compared to others and what it is about these neighborhoods that contribute to high crime rates (Kubrin, Stucky, & Krohn, 2009).

According to social disorganization theory, macro-level factors (i.e. urbanization, residential mobility, ethnic heterogeneity, etc.) influence crime rates by affecting levels of social disorganization at the community-level (Sampson & Groves, 1989). The concept of social disorganization is reflected by residents' ability to exert informal social control in their neighborhood (Kubrin, Stucky, & Krohn, 2009; Sampson & Groves, 1989). Social disorganization is expected to vary across communities. Socially disorganized neighborhoods are characterized by conflicting social norms and weak bonds among residents, as well as a low levels of social integration and interaction

among members of the community (Kubrin, Stucky, & Krohn, 2009). Higher levels of social disorganization are expected to reduce the ability of residents to exert informal social control in their neighborhood, which ultimately leads to higher rates of criminal activity in the community.

Social disorganization theory complements L/RAT by further elaborating on the contextual factors that influence criminal opportunities (Sampson, 1987). More specifically, social disorganization theory highlights routine activities of the neighborhood that influence victimization risk. For instance, Sampson and Groves (1989) found that crime rates were higher in communities characterized by "sparse friendship networks," the presence of unsupervised teenagers, and low resident participation in organizations such as the neighborhood watch (p. 799). From a L/RAT perspective, social disorganization increases the likelihood that motivated offenders will come into contact with attractive targets in the absence of capable guardianship. Thus, the consideration of community context, as well as other elements of social disorganization theory within the L/RAT framework seems to be an especially promising elaboration of L/RAT.

Further, the work of Schreck (1999) indicates that L/RAT can be strengthened by integrating this perspective with Gottfredson and Hirschi's (1990) general theory of crime. Specifically, Schreck (1999) argues that an individual with low self-control is more likely to lead a lifestyle that places him or her in risky situations, which puts him or her at an increased risk of being victimized. Subsequent research has found support for the link between low self-control, risky behavior, and increased victimization risk (Schreck & Fisher, 2004; Schreck, Wright, & Miller, 2002). As will be discussed in the

limitations section, the current study was unable to evaluate the effect of low self-control on victimization risk.

Another key finding from the current study was that specific L/RAT variables appeared to be more salient at particular stages of the lifecourse. This highlights the importance of examining victimization risk separately for different age groups, but also indicates that L/RAT may be improved by developing age-specific risk factors. That is, when examining victimization risk for older adults, it may be important to determine what types of behaviors are considered "risky" in old age. The current study conceptualized shared living arrangements as risky based on findings in the elder abuse literature, yet the number of household members failed to be significantly related to victimization in any of the multivariate models. It is reasonable to suggest that behaviors such as drinking and drug use, which put younger people at risk, put older individuals at risk for victimization as well. The elder abuse literature, however, suggests that the elderly may be engaging in other behaviors that are not traditionally conceptualized as "risky," but that still place them at a higher risk of victimization. It may not necessarily be the number of people residing in the elder's household that relates to risk, but possibly, who is living with the elder that matters when predicting victimization risk. Therefore, one possible refinement to L/RAT theory would be to begin to consider risk factors like dependency (both victim and offender), specific characteristics of the living situation, and other individual-level characteristics that may increase vulnerability among older adults. These types of "risky" behaviors for older adults may be key to extending the L/RAT framework to the study of elder abuse.

The current research also suggested that L/RAT may be a viable framework for understanding psychological abuse victimization. Other extensions of L/RAT have supported its application to victimizations well beyond the original scope of the theory (see Felson, 2001; Holt & Bossler, 2008; Holtfreter, Reisig, & Pratt, 2008; Marcum, Ricketts, & Higgins, 2010; Pratt, Holtfreter, & Reisig, 2010). Psychological abuse is not traditionally examined in the criminology literature because it is not criminal behavior. Past research has demonstrated that psychological abuse, like criminal victimization, can have a substantial impact on the victim's well-being (see Fisher & Regan, 2006). Moreover, it seems safe to argue that psychological abuse may be more likely if a suitable target has greater exposure and proximity to a motivated offender in the absence of capable guardianship. Consistent with this argument, proximity was significantly associated with psychological abuse. The guardianship and exposure measures were not significantly related to this form of abuse, but were all in the expected direction. Thus, there is preliminary evidence that suggests it is important to consider the further extension of L/RAT to emotional and psychological abuse.

Finally, there are also theoretical implications for the study of elder abuse that can be garnered from the current research. Most importantly, integrating criminological theories with elder abuse explanations is a promising avenue for theoretical development in the elder abuse literature. Another criminological theory that may be especially promising for understanding elder abuse and parallels caregiver stress explanations is strain theory. Exploring the ability of a variety of theoretical perspectives in criminology to explain elder abuse, as well as integrating these perspectives with current elder abuse explanations may provide important insight into the causal process underlying elder

victimization. Creating a solid theoretical foundation is essential for the advancement of knowledge in this area, as well as for the improvement of the current response to elder abuse.

Implications for Policy and Practice

Victimization is a significant problem for many individuals, young and old, throughout the United States and it was evident that victimization is also an issue in the lives of many of the individuals included in the current sample. Approximately 52% of the full sample reported that they had experienced at least one form of victimization. When overall victimization is broken down by age, nearly two-thirds of individuals between the ages of 18 and 29, approximately one-half of individuals ages 30 to 59, and over one-fourth of individuals ages 60 and older reported that they had experienced at least one form of victimization.

The findings from the current research suggest that one of the most consistent predictors of victimization is social disorganization in one's neighborhood environment. This suggests that victimization may be reduced by programs and policies that address social disorganization at the neighborhood-level. From a L/RAT perspective, reducing social disorganization and promoting informal social control in neighborhoods will ultimately decrease target suitability, as well as increase capable guardianship. Consequently, motivated offenders will be less likely to act on their inclinations to offend. As noted by past researchers, levels of disorganization can vary within communities so it is important that programs and policies are adaptable, thereby able to address specific problems within a given neighborhood.

Problem-oriented policing (POP) may be one promising approach to reducing social disorganization. This particular policing strategy seeks to expand the focus of the police to a wider array of problems that may be present in the community (Goldstein, 1979; Weisburd & Braga, 2006). Officers are challenged to approach problems such as public drinking and vandalism through innovative strategies that seek to address the underlying cause of the problems (Weisburd & Braga, 2006). Given the general thrust of POP, police officers are expected to collaborate with and make referrals to other agencies, like adult protective services, to address the issues that exist in the community. Research suggests that POP is an effective strategy for reducing crime and disorder (see Weisburd & Braga, 2006; Weisburd et al., 2010).

Another key finding of the current study was that socializing with others was a protective factor for adults age 60 or older. Interestingly, scholars have suggested that social disorganization may increase the social isolation of elders, as well as reduce the elderly's use of social services (see Payne, 2011). At this point it is merely conjecture, but improving the neighborhood environment may help to increase social interaction among residents, especially older residents, thereby potentially reducing victimization. Further, outreach programs that seek to identify at-risk elders and educate citizens about services for the elderly could help to reduce victimization among this population.

Limitations

While the current study adds to the elder abuse and criminological literature by applying lifestyles/routine activities theory to the victimization experiences of older and younger adults, the study is not without limitations. One of the main limitations of this study is that it is not a complete test of L/RAT. As previously mentioned, Hindelang,

Gottfredson, and Garofalo (1978) propose that activities that occur at night in public places such as bars are more likely to increase one's risk of being victimized. The dataset that was used does not include direct measures of these types of risky lifestyle behaviors and routine activities.

A significant limitation of the current research is the use of proxy measures for target suitability. For instance, age was used as a proxy measure for physical and cognitive vulnerability. Direct assessments of this aspect of target suitability are not available in the dataset employed in this study. Given that the elderly population is heterogeneous, it is likely that direct measures of physical and cognitive functioning are a more accurate assessment of target suitability compared to age. As previously discussed, the influence of aging on victimization risk is likely indirect and operates through the effect of aging on the aforementioned aspects of target suitability. This type of mediating relationship could not be investigated with the current data.

Further, the current study was unable to explore the possibility of cohort effects. A cohort effect is an effect associated with being a member of a particular group of people born during a specific era (Zink, Regan, Jacobson, & Pabst, 2003). Research suggests that cohorts of individuals born during one era exhibit characteristics and behaviors distinct from cohorts born during other eras (see Nilson, 2010; Oblinger, 2003). For instance, individuals born between 1982 and 1995 are considered part of the Millennial Generation (Nilson, 2010; Oblinger, 2003). Millennials are identified as being more familiar with technology, more dependent upon their parents, and more accustomed to team-work compared to the Baby Boomer Generation (i.e. individuals born in the late 1940s and late 1950s) and Generation X (i.e. individuals born in the 1960s and 1970s)

(Oblinger, 2003). Characteristics of each generation may influence victimization in such a way that distinct patterns of victimization risk emerge for each cohort. Thus, it may not be that aging and the effects of aging on lifestyle are associated with lower victimization risk, but instead that a certain generation (i.e. younger generations) are simply at a greater risk of victimization, and may remain at a greater risk of being victimized because of their cohort's particular characteristics and behaviors.

The categorical measures of age used in the current research may have also influenced the findings. That is, the use of different age categories may have yielded different results. For example, findings from the NCVS indicate that individuals below the age of 25 generally experience higher rates of violent victimization compared to individuals 25 years old and older (Truman, 2011). The current study grouped individuals in their late teens (i.e. 18 and 19 year olds) and early twenties with individuals entering their later twenties, which may have masked important differences among these age groups. Moreover, approximately 36% of the current study's sample was comprised of college students and many of these students were captured in the 18 to 29 age category. Research suggests that college students' lifestyles (i.e. Greek affiliation, binge drinking, etc.) expose them to different risks than that of non-college students (see Fisher, Daigle, & Cullen, 2010). Therefore, it is likely that focusing on college students may uncover different patterns of victimization, as well risk factors for victimization among this population than those established in the current research.

Additionally, the current study used a single proxy measure for exposure to motivated offenders. Other indicators of exposure that were not included in the current dataset such as drug use, alcohol use, and offending have also been shown to be

significantly associated with increased victimization risk. It is likely that the addition of variables tapping into other aspects of exposure may have added to the explanatory power of the current models and increased the amount of variance explained.

Another significant limitation of the current study is the inability to control for variables derived from other competing theories such as low self-control from Gottfredson and Hirschi's (1990) general theory of crime. As discussed in the theoretical development section, research has demonstrated a link between low self-control and victimization (Schreck, 1999). Unfortunately, low self-control was not measured in the current dataset. Moreover, measures of dependency, offender characteristics (i.e., alcohol/drug use, relationship to victim, psychological problems, etc.), and victim cognitive and/or functional impairment were not incorporated into the models presented in the current study. As discussed in Chapter 2, these characteristics of victims and offenders have been identified as key risk factors for victimization in the elder abuse literature.

It is possible that these omitted variables may be significantly associated with increased victimization risk for older and younger adults and that their inclusion could reduce the effects of variables found to be significant in the current models to non-significance. The manner in which health and emotional problems were measured in the current dataset precluded these variables from being considered in the statistical models. These items were assessed based on the individual's physical and mental condition in the past four weeks, whereas the reference period for victimization was much longer (i.e. lifetime reference period for telemarketing fraud and past five years for the other forms of victimization). It is impossible to determine whether the health and emotional issues

experienced by an individual during the past four weeks were present prior to his or her victimization.

Finally, there are several limitations associated with the survey methodology and sample used for the current research. First, the data used for the analysis is cross-sectional and one cannot rule out spuriousness or alternate causal paths. For instance, lack of capable guardianship, measured by assessing social isolation, may be a result of victimization rather than a cause. Moreover, the sample used in the current research is a community-based sample. While findings from this sample shed light on risk factors for victimization in the community, it does not allow for the examination of risk factors among vulnerable adults not residing in the community, specifically those who are residing in long-term care facilities and other institutional settings who may be at a high risk of experiencing victimization. Further limiting the generalizability of the findings, the sample is drawn from a single geographical area.

Future Research

There are a number of different directions for future research on victimization risk among older and younger adults. As alluded to in preceding sections, one promising direction is to examine how the relationship between age and victimization risk may be mediated by health and cognitive impairments. In order to do so, future studies must be able establish causal ordering to ensure that disabilities, health problems, and mental issues are influencing victimization, not the results of the victimization. One way to go about establishing causal order would be to collect longitudinal data on individual health and mental status, as well as victimization experiences. A longitudinal research design, however, may prove to be especially difficult when studying the elderly. Specifically,

conditions associated with aging such as vision and hearing problems, as well as Alzheimer's disease may lead to study attrition (Payne, 2011). This is especially problematic if the elders who drop out of the study are those most vulnerable to victimization.

It is also important for future research to attempt to replicate the findings from the current study to determine if the results are generalizable. Further, future studies should attempt to collect data on large and preferably, national samples of elderly adults. This type of sample is rare in the elder abuse literature and could provide significant insight into the victimization experiences, as well as causes of victimization among this population. Samples that are diverse including both institutionalized and community-dwelling elders are also needed. This will allow for the comparison of characteristics and risk factors for these two segments of the elderly population.

Another direction for future research is to directly assess the lifestyle behaviors and activities of the elderly. The current research used proxy measures for nonhousehold activity and other risky behaviors. It is important to directly assess these aspects of lifestyle that may put individuals at a greater risk of victimization. Further, future studies should seek to refine lifestyle and routine activities measures to be more sensitive to the context of aging. As discussed in the theoretical development section, measures tapping into age-specific risky behaviors should be developed within the L/RAT framework. It is also important to incorporate other theoretically relevant variables (i.e. self-control, etc.) that may influence victimization risk. The addition of these variables may lead to better fitting models and higher r-squared values.

Conclusion

Consistent with past research, the results from the current study indicate that age significantly influences victimization risk. There were exceptions, however, with age not being significantly associated with telemarketing fraud targeting and victimization. In general, younger adults are at a greater risk of experiencing all forms of victimization. The findings also indicated that specific elements of the L/RAT framework are more relevant for particular offenses with an indicator of proximity to motivated offenders, neighborhood environment, being the only consistent predictor of victimization across models. Moreover, when exploring the effects of L/RAT for different age categories, the findings suggest that different elements of L/RAT are more salient at particular stages of the lifecourse. In the future, researchers may gain further insight into these differences by incorporating measures of risky lifestyle behaviors that are age-specific, as well as other relevant control variables derived from other theoretical perspectives into their statistical models. It is also important for researchers to collect data on larger and more diverse samples of older adults to determine if the results of the current study are generalizable. Overall, the results of the current study coupled with past research demonstrate that victimization affects individuals of all ages and further research is needed to understand the underlying dynamics that lead to differential risk of victimization.

Appendix A

Distribution of Victimization Experiences for Three Age Groups

	18 – 29 (n = 537) % (n)	**30 – 59 (n = 450)** % (n)	**60+ (n = 264)** % (n)
Telemarketing fraud targeting	38.4% (198)	44.1% (179)	44.5% (102)
Telemarketing fraud	9.0% (47)	8.1% (36)	9.1% (23)
Physical abuse	27.6% (145)	8.5% (38)	3.5% (9)
Theft	45.4% (239)	37.1% (165)	16.1% (41)
Psychological abuse	37.8% (198)	20.4% (91)	9.5% (24)
Overall victimization	65.7% (343)	49.7% (220)	25.7% (63)

Appendix B

Multicollinearity Diagnostics

Dependent Variable	Independent Variable	Model 1 Tolerance	Model 1 VIF	Model 2 Tolerance	Model 2 VIF
Telemarketing fraud targeting	Race	0.904	1.106	0.900	1.112
	Sex	0.954	1.049	0.953	1.049
	Household income	0.871	1.148	0.850	1.176
	Age (continuous)	0.412	2.427	--	--
	Age 30 – 59	--	--	0.643	1.554
	Age 60+	--	--	0.360	2.775
	Socialize weekly	0.928	1.078	0.915	1.093
	Feel connected to others	0.935	1.069	0.934	1.070
	Attend church regularly	0.897	1.114	0.897	1.115
	Retired	0.529	1.891	0.424	2.357
	Unemployed	0.745	1.347	0.727	1.376
	Employed part-time	0.650	1.539	0.602	1.660
	Number of household members	0.773	1.294	0.770	1.299
	Neighborhood environment	0.951	1.051	0.950	1.052
Telemarketing fraud victimization	Race	0.908	1.101	0.903	1.108
	Sex	0.952	1.050	0.952	1.050
	Household income	0.872	1.147	0.846	1.182
	Age (continuous)	0.424	2.360	--	--
	Age 30 – 59	--	--	0.640	1.562
	Age 60+	--	--	0.372	2.689
	Socialize weekly	0.922	1.085	0.911	1.098
	Feel connected to others	0.929	1.076	0.928	1.077
	Attend church regularly	0.896	1.117	0.898	1.114
	Retired	0.540	1.852	0.440	2.270
	Unemployed	0.758	1.320	0.741	1.349
	Employed part-time	0.668	1.497	0.614	1.629
	Number of household members	0.774	1.292	0.769	1.301
	Neighborhood environment	0.953	1.049	0.952	1.051

Multicollinearity Diagnostics, continued

Dependent Variable	Independent Variable	Model 1 Tolerance	Model 1 VIF	Model 2 Tolerance	Model 2 VIF
Physical abuse	Race	0.909	1.100	0.904	1.106
	Sex	0.953	1.049	0.953	1.049
	Household income	0.872	1.147	0.846	1.182
	Age (continuous)	0.421	2.376	--	--
	Age 30 – 59	--	--	0.639	1.566
	Age 60+	--	--	0.368	2.716
	Socialize weekly	0.923	1.084	0.911	1.097
	Feel connected to others	0.931	1.074	0.930	1.075
	Attend church regularly	0.896	1.116	0.899	1.113
	Retired	0.537	1.861	0.436	2.294
	Unemployed	0.756	1.322	0.739	1.353
	Employed part-time	0.666	1.501	0.612	1.633
	Number of household members	0.771	1.297	0.766	1.305
	Neighborhood environment	0.953	1.050	0.951	1.051
Theft	Race	0.910	1.099	0.906	1.104
	Sex	0.954	1.048	0.953	1.049
	Household income	0.872	1.146	0.847	1.181
	Age (continuous)	0.422	2.367	--	--
	Age 30 – 59	--	--	0.640	1.562
	Age 60+	--	--	0.369	2.708
	Socialize weekly	0.922	1.084	0.911	1.097
	Feel connected to others	0.931	1.074	0.930	1.075
	Attend church regularly	0.894	1.118	0.897	1.115
	Retired	0.539	1.856	0.436	2.295
	Unemployed	0.757	1.320	0.739	1.353
	Employed part-time	0.667	1.499	0.613	1.633
	Number of household members	0.772	1.295	0.768	1.302
	Neighborhood environment	0.952	1.050	0.951	1.052

Multicollinearity Diagnostics, continued

Dependent Variable	Independent Variable	Model 1 Tolerance	Model 1 VIF	Model 2 Tolerance	Model 2 VIF
Psychological abuse	Race	0.911	1.098	0.906	1.103
	Sex	0.954	1.048	0.954	1.048
	Household income	0.871	1.148	0.844	1.185
	Age (continuous)	0.420	2.380	--	--
	Age 30 – 59	--	--	0.637	1.570
	Age 60+	--	--	0.368	2.716
	Socialize weekly	0.920	1.087	0.909	1.101
	Feel connected to others	0.930	1.075	0.930	1.076
	Attend church regularly	0.896	1.116	0.899	1.112
	Retired	0.536	1.866	0.435	2.298
	Unemployed	0.756	1.322	0.740	1.352
	Employed part-time	0.662	1.510	0.610	1.639
	Number of household members	0.770	1.298	0.767	1.305
	Neighborhood environment	0.953	1.049	0.952	1.051
Overall Victimization	Race	0.910	1.098	0.906	1.104
	Sex	0.954	1.048	0.953	1.049
	Household income	0.871	1.148	0.844	1.184
	Age (continuous)	0.425	2.355	--	--
	Age 30 – 59	--	--	0.640	1.563
	Age 60+	--	--	0.373	2.681
	Socialize weekly	0.920	1.087	0.908	1.101
	Feel connected to others	0.929	1.077	0.928	1.078
	Attend church regularly	0.894	1.118	0.897	1.115
	Retired	0.540	1.852	0.440	2.275
	Unemployed	0.759	1.318	0.742	1.349
	Employed part-time	0.665	1.504	0.612	1.634
	Number of household members	0.775	1.291	0.771	1.298
	Neighborhood environment	0.953	1.049	0.952	1.050

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Criminal Justice, Criminology, Victimology, White-Collar Crime, Research Methods

PUBLICATIONS

PEER-REVIEWED SCHOLARLY JOURNAL ARTICLES

Policastro, Christina & Payne, Brian K. (In press). Assessing the level of elder abuse knowledge pre-professionals possess: Implications for the further development of university curriculum. *Journal of Elder Abuse & Neglect*.

Policastro, Christina & Payne, Brian K. (In press). An examination of deviance and deviants in the durable medical equipment (DME) field: Characteristics, consequences, and responses to fraud. *Deviant Behavior.*

Policastro, Christina & Payne, Brian K. (In press). Domestic violence myths: The criminalization of victimhood. *Journal of Aggression, Maltreatment, & Trauma.*

Policastro, Christina, Payne, Brian K., & Gainey, Randy R. (In press). Conceptualizing crimes against older persons: Elder abuse, domestic violence, white-collar offending, or just regular 'old' crime. *Journal of Crime and Justice.*

BOOK REVIEW

Policastro, Christina. (2011). Review of the book *Female Offenders and Risk Assessment: Hidden in Plain Sight. Criminal Justice Review, 36*(3), 368-370.

BOOK CHAPTERS AND ENCYCLOPEDIA ENTRIES

Payne, Brian K. & Policastro, Christina. (In press). "Interventions, policies, and future research directions in family violence." In Cuevas, Carlos & Rennison, Callie M. (eds.), *The Wiley-Blackwell Handbook on the Psychology of Violence,* Wiley-Blackwell.

Policastro, Christina. (In press). "Elder abuse." In Forsyth, Craig J. & Copes, Heaith (eds.), *Encyclopedia of Social Deviance,* Sage.

WORKS IN PROGRESS

Mummert, Sadie, Policastro, Christina & Payne, Brian K. Teaching sensitive topics in the college classroom: Dilemmas associated with violence against women.

Payne, Brian K. & Policastro, Christina. Elder neglect and strain: Can't get no satisfaction in the caregiver role?

Policastro, Christina & Daigle, Leah E. Risky behaviors and dating violence among young adults.

Policastro, Christina & Eigenberg, Helen. Views of justification and blame of violent interpersonal dating relationships.

Policastro, Christina & Finn, Mary A. Crossing the disciplinary divide: An integrated understanding of intimate partner violence among the elderly.

Policastro, Christina & Payne, Brian K. Telemarketing fraud and the elderly: A comparison of younger and older victims.

Policastro, Christina, Teasdale, Brent, & Daigle, Leah E. The recurring victimization of individuals with mental illness.

PROFESSIONAL PRESENTATIONS

Policastro, Christina. "Telemarketing fraud victimization among older and younger adults." Paper presented at the annual meeting of the Academy of Criminal Justice Sciences, Dallas, TX, March 2013.

Policastro, Christina & Daigle, Leah. E. "Risky behaviors and relationship violence among young adults." Paper presented at the annual meeting of the American Society of Criminology, Chicago, IL, November 2012.

Policastro, Christina & Payne, Brian K. "An examination of deviance and deviants in the durable medical equipment (DME) field: Characteristics, consequences, and responses to fraud." Paper presented at the annual meeting of the Southern Criminal Justice Association, Atlantic Beach, FL, September 2012.

Policastro, Christina & Payne, Brian K. "Domestic violence myths: The criminalization of victimhood." Paper presented at the annual meeting of the American Society of Criminology, Washington, D.C., November 2011.

Policastro, Christina & Finn, Mary A. "Crossing the disciplinary divide: An integrated understanding of intimate partner violence among the elderly." Paper presented at the annual meeting of the Southern Criminal Justice Association, Nashville, TN, September 2011.

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