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Research Article

When Older Assault Victims Fight Back: Investigating the Effects of Self-Protective Behaviors on the Probability of Injury

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Abstract

Using data from the National Crime Victimization Survey (NCVS), this paper examined factors that predict injury from assaults for a nationally representative sample of adults aged 65 or older. Results indicate that victims who implemented verbal/ passive resistance strategies only were almost 57% less likely to be injured compared to those who did nothing or used physical forms of resistance. Assaults by family members were over 150% more likely to result in injury compared to assaults perpetrated by strangers. Moreover, older victims assaulted by other known offenders were also more likely to result in injury compared to stranger assaults. This belies the notion that older adults are more vulnerable to predation on the street. When they are assaulted in their homes by known and familial offenders, they are significantly more vulnerable to injury. Policy implications discussed.

Introduction

Research often highlights the factors associated with victimization of young individuals, while crimes committed against older victims of violence remain on the periphery of both epidemiological and etiological exploration. The relative lack of attention concerning victimization of older individuals is surprising for several reasons. First, the United States is experiencing a "graying" of the U.S. population. Over the past decade, the population of individuals sixty-five and older increased by over a third. Second, some evidence suggests that the rate of violent crimes committed against the elderly has risen over the past several years. For example, using data from the National Electronic Injury Surveillance System-All Injury Program and National Vital Statistics System, found that from 2007 to 2016, females aged sixty and older witnessed a 35.4% increase in the rate of nonfatal assaults while their male counterparts experienced an even higher 75.4% increase. And finally, research indicates that violent crime victims aged 65 and older are more likely to sustain serious injuries compared to their younger counterparts [1] and more likely to require medical care [2,3]. While it is difficult to quantify the exact societal costs of this victimization, injuries resulting from violent crime against the elderly are associated with annual expenditures of $5.3 billion in direct medical care [4]. Furthermore, evidence suggests that the burden to the individual, including increased psychological maladies such as depression and anxiety and decreased functional and physical health conditions, remain years after the initial victimization [5].

While we know that older adults are at a greater risk of suffering more deleterious health related consequences from violent attacks, we know little about the contextual characteristics of a victimization that may increase or decrease the likelihood of sustaining injury. Specifically, it is important to understand whether the actions (or inaction) of these older victims can reduce the risk of injury when confronted by a violent attack. By using the most recent data from the National Crime Victimization Survey (NCVS), this paper examines the contextual characteristics of nonsexual physical assaults against those 65 years of age and older, including the relationship between the victim and offenders, use of a weapon by the offender, location of the victimization, and the victim's use of self-protective behavior, which affect the probability of victims sustaining injury. By relying on a nationally representative sample of victimizations that moves beyond incidents reported to the police, our study provides a more generalizable and accurate understanding of the correlates of injuries among elderly victims of violence.

Factors Related to Victim Injury in Assaults

Before reviewing what is known about the factors related to injuries sustained during assaults, it is important to highlight the difficulties in making comparisons across empirical studies. Due to methodological and conceptual variations within the literature, a clear understanding of the relationship between victim injury and age has failed to emerge. Research concerning the victimization of the elderly has traversed a variety of disciplines including health and medicine, gerontology, criminology, and sociology [6]. The scope of "Elder victimization" often varies across studies, encompassing a wide range of victimizations from financial exploitation and neglect to aggravated assault and murder [1]. As a result of these diverging definitions, the research within elderly victimization often can be split into four broad categories of conceptualization: elder abuse, family violence, white-collar crime, or general crime [6]. Predictably, depending upon which conceptualization a study employs, different patterns may emerge concerning contextual factors of victimization such as the relationship between the victim and offender and who is most at risk. For example, many studies restrict their focus to incidents of elder abuse rather than assaults generally. Elder abuse is defined as "an intentional act, or failure to act, by a caregiver or another person in a relationship involving an expectation of trust that causes or creates a risk of harm to an older adult".

Results from surveys such as the National Elder Mistreatment Study (NEMS) have enhanced our understanding of the emotional and physical consequences of this specific type of abuse, including increased hospitalization, deterioration of mental/physical health and premature mortality [7]. However, elder abuse, by definition, is often contingent upon a relational connection between the victim and offender (e.g., as caregiver). Older individuals are not immune to more "General" forms of crime, yet this subset of older victims is often overlooked. Within the general crime literature, only a handful of quantitative studies have placed elder victimization at the center of their analyses and provided an in-depth exploration of older individuals' experiences with this broader conceptualization of victimization [1,8,9]

These methodological issues are further exacerbated by the diverse conceptualizations of both injury and the samples employed across studies. Generally, research examining the contextual factors related to sustained injury draw from various data sources including the National Crime Victimization Survey (NCVS), National Incident-Based Reporting System (NIBRS) and emergency room data. In addition, the extant literature has examined a range of crime types such as intimate partner violence [10], sexual assault [11], physical assaults, and robbery [12,13]. Results from studies relying solely on police report data (NIBRS) or emergency room data will likely be very different from results of studies using a nationally representative sample of victimizations in which victims may or may not have reported the incident to police and/or sought medical care. We will highlight these methodological issues as we review the literature that has examined the general correlates of injury within the victimization literature [14-20].

One of the correlates of victim injury that has received a great deal of attention within the literature concerns the use of self-protective behaviors. Generally, resistance among victims of violence is a form of self-help [12]. Behaviors that fall under resistance may vary between physical (e.g., "Fighting back") and non-physical forms (e.g., screaming or calling out for help). In general, these actions are employed to stop or reduce the severity of a violent attack [17]. The relationship between self-protective behavior and injury remains inconclusive with some evidence demonstrating that there is no relationship [11,18,20], and other studies indicating that physical resistance is associated with an increased probability of injury for certain victim and offender relationships [16,17]. These inconsistent findings may stem from methodological choices that researchers make including, 1) the operationalization of both resistance and injury, 2) failure to incorporate the temporal sequencing between resistance and injury, and 3) whether crime-specific analysis are performed compared to combining all forms of nonfatal violence together.

In addition to self-protective behaviors, the link between various contextual and demographic characteristics and victim injury have been explored. For instance, victim-offender relationship, the presence of a non-firearm weapon, and the location of the victimization (e.g., public place versus private residence) are linked to an increase likelihood of injury for the victim [3,13]. While some evidence suggests that females are more likely to experience injury during victimization relative to their male counterparts [14], a recent study looking at robberies and physical assaults using NIBRS data found that females were significantly less likely than their male counterparts to experience injuries for these offenses [13].

Finally, and most importantly regarding the focus of the present analysis, the link between victim age and injury deserves further exploration within the general crime literature. Most studies within this literature have restricted age to a control variable. Studies with this focus suggest that as age increases, so does the likelihood of experiencing injury stemming from a victimization [13]. However, studies that have incorporated age into the central focus of their analyses have produced results that may conflict with or further muddy our understanding of correlates of victim injury. For instance, some research suggests that victimizations perpetrated by family members and acquaintances are associated with a higher risk of injury compared to incidents when the victim and offender are strangers [15]. However, Kelsay, Tillyer, Tillyer & Ward [9] found that the association between victim-offender

relationship and injury may be conditioned by age group. More specifically, using NIBRS police report data, Christina Policastro, et al. [9] found that victimizations from family members were associated with an increased risk of injury for children, adolescents and adults but was not significant for elderly victims.

Other research has examined the differential effects of physical versus nonphysical forms of self-protective behavior on injury. For example, Bachman, Lachs, and Meloy [15] found that non-physical forms of resistance were more effective in reducing elderly victims' probability of being injured compared to physical resistance or no resistance. Unfortunately, this study aggregated the crimes of robbery and physical assault together in the analysis so these results cannot be generalized to any one type of victimization.

Other methodological decisions have further impeded making comparisons across studies in this area. One of these issues is operationalizing exactly what self-protective behavior is. Previous studies using the NCVS have generally relied on measures ranging from a binary variable (no behavior vs. any kind of self-protective behavior) to sixteen separate categories of self-help (The NCVS asks respondents "Was there anything you did or tried to do about the incident while it was going on?" If respondents answered yes, they were asked about sixteen different behaviors they could have used).

While a binary variable may fail to capture the nuanced nature of how resistance impacts the risk of injury, relying on the sixteen-category operationalization is equally problematic. First, the categories are not mutually exclusive, thus forcing researchers to rely on ambiguous and diverse procedures for coding these actions when multiple behaviors are implemented (e.g., see Yun & Lee, 2014) [16]. Furthermore, this sixteen action technique results in extremely small sample sizes for each variable. For example, using NCVS data focusing on female nonsexual assaults with male perpetrators (n=7,456), [16] found only ten cases in which one of these actions, resistance with a firearm, was used. These small sample sizes across non-mutually exclusive categories will result in tenuous findings at best.

While binary variables and 16 category measures represent the extreme ends of a continuum, other studies have relied on intermediate operationalizations. For instance, Bachman, Lachs and Meloy (2004) [15] employed a model in which self-protective behavior was broken down into physical and verbal forms of resistance. If individuals used both physical and verbal forms of resistance, a hierarchal coding procedure was implemented in which the individual was coded as using physical resistance. Other studies have attempted a more nuanced model in which physical and verbal resistance is disaggregated into two types (forceful and non- forceful) [11,17]. This type of separation is subject to the limitations discussed above concerning ambiguity in classification when multiple self-protective behaviors are used.

Another methodological issue is whether researchers control for the temporal sequence of self-protective behavior and injury. For example, a victim's action may be considered self-protective behavior if it occurs either before or during an injury, but behavior that is performed after an injury occurs would not be classified as self-protective [15]. Cleary, behavior that is implemented after an injury occurs cannot be predictive of that injury. While more recent studies using the NCVS data are able to incorporate this temporal element, it is not always clear if the procedure for coding this sequence is consistent across studies or, in some cases, whether it is implemented at all. For instance, Tark and Kleck (2004) [18] restrict their analyses to cases in which the self-protective behavior occurred before an injury transpired, excluding cases in which the self-protective behavior was implemented during an injury, which may have effected their results.

Finally, contradictory results across studies may be linked to the type of offenses examined. A significant body of literature focuses on the impact of self-protective behaviors in sexual assault victimizations but only a handful have control for the temporal sequence of events. Research that does incorporate the temporal sequence of events consistently demonstrates that physical resistance is uncorrelated with risk of injury for these crimes [11,19]. Considerably less research has examined this relationship for other types of offenses such as physical (nonsexual) assault [16,17]. Moreover, the majority of these studies have limited their focus to female victimizations by male perpetrators [16,20,21]; or have examined combined both assault and robberies together to increase sample size [15]

Despite research indicating that older victims are more likely to sustain serious injuries as the result of a victimization, little research has examined the effect of victim resistance for older victims. With the exception of a few studies (e.g., Bachman, Lachs, & Meloy, 2004) [15], research examining the impact of self-help behaviors on injury treat age as a control variable. One study that has examined elderly victims separately [15] found that non-physical forms of resistance were more effective in reducing a victim's probability of being injured compared to physical resistance or no resistance. Unfortunately, this study aggregated the robbery and physical assault victimizations.

Because, prior research demonstrates the importance of examining issues of etiology within more homogeneous categories of victimization [22]. The current study explores the relationship between different types of self-protective behavior and the likelihood of injury for more homogeneous category of assaults against those aged 65 or older while controlling for other im-

portant contextual characteristics of the assault such as the victim and offender relationship (intimate, other family, other known, stranger), weapon presence, location of the victimization, and other demographic characteristics. This will identity the most important factors that both increase or decrease the likelihood of elderly assault victims sustaining injuries.

Methods

Sample

The data for this study utilized the Bureau of Justice Statistics' sponsored National Crime Victimization Survey (NCVS): Concatenated files, 1998-2018. The sample consists of approximately 50,000 housing units and over 101,000 individuals annually. Those eligible for inclusion in the sample include individuals age 12 or older living in the United Sates, including persons living in group quarters such as dormitories and rooming houses. However, the survey does not interview members of any type of institutionalized population including those living in nursing homes. The purpose of this survey is to obtain the actual prevalence of victimizations that are both reported and not reported to the police along with the contextual characteristics of victimizations including whether any injuries were sustained, whether the police were notified, and other contextual characteristics of the incident.

This study will rely on assault victimizations, which are defined by the NCVS as any unlawful physical attack or threat of attack. There were 1,058 unweighted incidents of assault against individuals 65 years of age or older included in the analyses.

Dependent Variable

Victim Sustained Injuries. The trauma of experiencing an assault is a brutalizing experience. Nonfatal injuries can range from emotional and psychological trauma to near fatal physical injuries. This paper focuses on nonfatal physical injuries, which were ascertained by a question that asked respondents, "What were the injuries you suffered, if any?" Injuries ranged from severe (e.g. broken bones or teeth) to minor (e.g. bruises or cuts). However, less than 10% of incidents resulted in severe injuries, so unweighted sample sizes were too small to warrant reliable comparisons across injury types. The dependent variable for this paper is a dichotomous variable coded 1 for those victimizations that resulted in some type of physical injury and 0 for incidents that resulted in no physical injuries. The univariate distributions for all variables are reported in Table 1. Assault victims aged 65 years of age or older sustained physical injuries 16.2% of the time.

Table 1: Descriptive Statistics of Assault Incidents against Victims 65 Years of Age or Older, NCVS 1998-2018, n=1,058.

	Percentage or mean (range)
Female Victim	49.2
Male Offender	71.4
Lone Offender	88.2
Victim Married	39.9
Victim Employed	22.3
Victim had Some College or More	57.3
Offender had Weapon During Assault	18.9
Race/Ethnicity of Victim	
Non-Hispanic White	77.1
Non-Hispanic Black	11.2
Hispanic Any Race	7.3
Other	4.4
Self-Protection Behavior	
None	47.7
Nonphysical Only	26.6
Physical and/or Nonphysical	25.7
Victim/Offender Relationship	
Intimate Partner	3.9
Other Family	14.7
Other Known	44.0
Stranger	37.5
Assault Occurred in Private Location	27.3
Victim was Injured	16.2
Mean Age of Victim	70.6 (65 to 90)

Independent Variables

Self-Protective Action. To determine whether victims engaged in self-protective behaviors, they were asked, "Did you do anything with the idea of protecting yourself or your property while the incident was going on?" If they answered yes, they were asked what type of action they took. These were categorized by

the NCVS into several domains that ranged from using a weapon to reasoning with the offender. Victims who reported using self-protective measures and who were injured were also asked whether their actions took place before, during, or after the injury. The questions are multiple response in nature, which means that victims can report employing multiple types of self-protective actions at any of the tree times. That is, they could employ both physical and passive measures either before, during, or after the injury or at any combination of these times. To examine whether self-protective behavior increases or decreases the likelihood of injury, we must ensure that the protective behavior came before or during the injury, not after (Bachman, et al. [15] operationalized self-protection to occur only if the offender(s) were the first to use physical force. However, when we examined this issue, less 2% of robbery and less than 1% of assault victims reported that they were the first to engage in force. We did recode self-protective behavior to indicate these as 'no self-protection used,' but results were virtually identical to our original coding).

Following Bachman, Lachs, and Meloy [15], we distinguished between whether victims used no self-protective behavior, or whether they engaged in at least one form of physical behavior or engaged exclusively in verbal or passive self-protection. The physical behaviors included such things as attacking offender with a weapon, physically defended or resisted offender, chased offender and so on. The verbal or passive protective behaviors included actions such as yelling, cooperating with offender, argued or reasoned with offender and so on. Because victims could have done one or all of these behaviors, two variables were hierarchically coded to reflect any victim who engaged in either physical behavior alone or both physical and passive self-protective behavior were coded 1 for physical self-protection. Those victims who only used verbal/passive self-protection and not physical were coded 1 for the verbal/passive self-protective behavior. Finally, if victims engaged in this behavior only after being injured, they were coded as not engaging in any self-protective action. As shown in Table 1, 47.7% of victims engaged in no form of self-protection, 26.6% engaged in nonphysical only, and 25.7% used some form of physical self-protective behavior.

Age

Victim's age is used in several ways in the analyses that follow. Bivariate analysis relies on a 2-category age variable to illuminate the patterns of both injury and self-protective use for those aged 65 to 74 compared to those aged 75 years of age or older. In multivariate models predicting injury, age is used as a continuous variable (range 65 to 90), which had a mean age of 70.6.

Contextual Characteristics of Assaults: To ascertain the relationship between the victim and the offender, victims were first asked whether they could recognize the offender and, if so, the exact relationship they had to them. The majority of assault victimizations involved lone offenders (88.2%). The relationship between the victim and offender was classified into four categories: 1) Intimate partner, which included any current or former spouse or boy/girlfriend; 2) Other family, which included any immediate or extended family member other than spouse, 3) Other Known, which included all other known individuals, and 4) those who were assaulted by strangers. As shown in Table 1, only 37.5% of assault victims 65 years of age or older were attacked by strangers. They were most likely to be assaulted by known offenders (44.0%), other family members (14.7%), and finally by an intimate partner (3.9%). Because there were so few victims assaulted by their intimate partners, this category were not included in the multiple regression model predicting injury and assaults involving strangers was left out as the reference category for those assaulted by other family members and other known offenders.

Violent attacks by offenders brandishing a weapon clearly change the context of an incident. Victims were asked, "Did the offender have a weapon such as a gun or knife, or something to use as a weapon, such as a bottle or wrench?" If they responded yes, they were asked, "What was the weapon?" We distinguished between incidents where offenders were armed with any type of weapon or something that could be used as a weapon. Only 18.9% of the assault victims faced an armed offender. And finally, where the assault took place was examined using a dichotomous variable coded 1 for all assaults that took place either in or outside the victim's private residence and 0 if it occurred in a public location.

Demographic Controls: Several variables were used as demographic controls when predicting the probability of injury. Victims' gender was coded 1 for female victims (49.2%) and 0 for males. Race and ethnicity were combined and coded 1 for white non-Hispanic victims (77.1%) and 0 otherwise. The gender of the offender was coded 1 for male offenders (71.4%) and 0 otherwise. The number of offenders was controlled using a dichotomous variable coded 0 for assaults involving lone offenders (88.2%) and 1 if there was more than 1 offender. Education was measured using a dichotomy coded 1 for those who had some college or more (57.3%) and 0 otherwise. Finally, 2 dichotomous variables were used to measure both marital relationship (those married coded 1 and 0 otherwise) and employment (those employed either full or part-time coded 1 and 0 otherwise) (39.9% married and 22.3% employed).

Analysis Strategy

We will first examine the bivariate relationships between our key independent variables of age and self-protective behavior and their relationship to injury. We will examine a multivariable regression model predicting injury for assault victimizations. Because the NCVS data are obtained using a multistage cluster

sampling method, it cannot be assumed that the probability of selection for each sample household is equal. In addition, a crime incident may involve more than one member of a household and any one household member may have experienced a similar victimization on more than one occasion during the reference period. If a respondent experiences a similar victimization within the reference period so many times that they cannot recall each incident in detail, the incident is classified as a series incident and detailed information about the most recent incident is collected. In 2018, the most recent year data was published by BJS, less than 2% of all victimizations were series incidents [23].

Importantly, each of these factors may affect the standard error estimates of coefficients that are used to test null hypotheses about the relationship between an independent and dependent variable. Typically, an incident weight has been applied to multivariate models, which divides the person weight of a victim by the total number of persons victimized during an incident as reported by the respondent. In 2016, BJS also created a Series weight that adjusts for series crimes. Since it is not possible to use both weights when estimating multivariate models, we estimated separate models using the incident and series weights. Since there was no meaningful difference between models, the results obtained using the incident weights are reported here.

Results

Table 2 presents the bivariate percentage distributions of injury across categories of the independent variables. Importantly, the percentages were calculated using the number of those in each independent variable category as the denominator, which appropriate to determine the effects of each category on the probability of injury [24]. As a result, the percentages do not sum to 100 across the categories. At the bivariate level, victims who engaged in only nonphysical self-protective behavior were less likely to be injured compared to either those who engaged in some physical self-protection or those who did nothing. Female victims were more likely to sustain injuries compared to their male counterparts. Those assaulted by lone offenders were more likely to sustain injuries compared to those attacked by multiple offenders. Somewhat interestingly, those assaulted by females were more likely to sustain injuries compared to those attacked by males. Assault victims aged 75 years of age or older were more likely to be injured compared those aged 65 to 74. Victims assaulted by strangers (9.3%) were the least likely to be injured and those attacked by both intimate partners (26.8%) or other family members (32.9%) were more likely to be injured compared to other known offenders (15.5%). Victims assaulted that occurred in private locations were almost twice as likely to sustain injuries compared to those that occurred in private (29.1% versus 11.3%). The only other demographic characteristic to affect injury was marital status; married victims were less likely to sustain injuries compared to their unmarried counterparts.

Table 2: Percentage of Assaults against those 65 Years of Age or Older that Resulted in Injury by Independent Variable Categories, n=1,058.

	Percentage Injured
Self-Protection Behavior	
None	18.2*
Nonphysical Only	9.3
Physical and/or Nonphysical	19.5
Female Victim	18.8*
Male Victim	13.6
Male Offender	14.3**
Female Offender	20.8
Lone Offender	17.4**
Multiple Offenders	7.2
Victim Married	10.2**
Victim Not Married	20.1
Victim Employed	16.4
Victim Not Employed	15.3
Victim had High School or Less	17.5
Victim had Some College or More	15.2
Offender had Weapon During Assault	14.5
Did not have Weapon	16.6
Race/Ethnicity of Victim	
NonHispanic White	15.9
NonHispanic Black	11.0
Hispanic Any Race	20.8
Other	25.5
Victim/Offender Relationship	
Intimate Partner	26.8**
Other Family	32.9
Other Known	15.5
Stranger	9.3
Assault Occurred in Private Location	29.1**
Occurred in Public Location	11.3

Victim Age Group	
65 to 74	14.0**
75 or Older	23.7
* p<.05, ** p<.01	

These bivariate findings are illuminating, but to determine whether these relationships remain are spuriously related to injury, it is important to predict the probability of injury using multiple logistic regression. Table 3 presents these results. As can be seen, even after controlling for the other independent variables, assault victims age 65 and older were significantly less likely to be injured if the engaged in verbal or passive resistance compared to either doing nothing or engaging in physical self-protective behavior. Married assault victims were also less likely to be injured compared to nonmarried victims. Age also retained its significance, with the probability of injury increasing along with victim's age. The victim and offender relationship continued to affect the probability of injury with assaults perpetrated by family members and other known offenders significantly more likely to result in injury compared to victims assaulted by strangers. In fact, the odds of a victim sustain injury from an assault was over 150% higher when the offender was a family member compared to a stranger. This is likely related to the significant finding for location, wherein those assaulted in their private residences were more likely to sustain an injury compared to those assaulted in public spaces. Logically, those assaulted by family members would be more likely to be victimized in their places of residences. After controlling for all of these independent variables, neither the victim's nor the offender's gender affected the likelihood of injury. However, the coefficient for the number of offenders would be significant with a one-tailed test as it was marginally significant here (p<.06), indicating those facing lone offenders were more likely to sustain injury compared to those assaulted by multiple offenders.

	SE	Exp(B)
Physical Self-Protection	.204	.992
Nonphysical Self-Protection Only	.269	.433**
Female Victim	.195	.880
Male Offender	.192	.727
Multiple Offenders	.372	.505ᵃ
Victim Married	.204	.505**
Victim NHWhite	.211	.932
Offender from family	.295	2.568**
Other Known Offender	.223	1.596*
Private Location	.603	1.828**
Age (Interval)	.030	1.030*
-2LL=839.6**; *p<.05, **p<.01; ᵃp<.06		

Table 3: Logistic Regression Results Predicting Injury for Assault Victimizations against those 65 Years of Age or Older, n=1,058

Discussion

The current article has examined the factors related to both increasing or decrease in the probability of injury during an assault for those victims aged 65 and older. Several findings are worth highlighting. First, actions taken by older victims of assault significantly affect the likelihood being injured even after controlling for other important variables including the victim and offender relationship. Victims who implemented verbal/passive resistance strategies only were almost 57% less likely to be injured compared to those who did nothing or used physical forms of resistance. Programs aimed at educating older community members about effective verbal or passive resistance techniques could go a long way

in reducing injury, especially among vulnerable populations such as many segments of elder Americans. For example, it is estimated that nearly one quarter of noninstitutionalized individuals aged 65 and older in the United States could be classified as socially isolated [25]. Because a nontrivial percentage of older adults lack sufficient social supports, outreach efforts must be made to ensure older adults understand how to report a victimization, how to access services to deal with the impact of a victimization including the physical, emotional, and financial impacts.

In contrast to research with younger victims, women and men aged 65 or older were equally likely to sustain injuries during an assault, as were white and nonwhite victims. The contextual characteristic of the victimization that was very significant in predicting injury was the victim and relationship. Assaults by family members were over 150% more likely to result in injury compared to assaults perpetrated by strangers. Moreover, older victims assaulted by other known offenders were also more likely to result in injury compared to stranger assaults. This belies the notion that older adults are more vulnerable to predation on the street. When they are assaulted in their homes by known and familial offenders they are significantly more vulnerable to injury.

By 2034, for the first time in U.S. history, the elderly will outnumber those in infancy and youth. More specifically, the age demographics of the population will consist of approximately 77 million people aged 65 and older compared to 76.5 million individuals under the age of 18 [26,27]. As the older population continues to grow, it is imperative that researchers explore the idiosyncratic vulnerabilities and consequences of victimization against this subgroup using both quantitative and qualitative methods.

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