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Help-Seeking Behavior of African American and Non-African American Victims of Elderly Abuse

Tesfaye Yigletu Wosene
Walden University

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Walden University

College of Health Sciences and Public Policy

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Tesfaye Y Wosene

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Dr. Patrick Dunn, Committee Member, Public Health Faculty
Dr. Kai Stewart, University Reviewer, Public Health Faculty

Chief Academic Officer and Provost
Sue Subocz, Ph.D.

Walden University
2022

Abstract

Help-Seeking Behavior of African American and Non-African American Victims of
Elderly Abuse

by

Tesfaye Y Wosene

MS, Excelsior College, 2016

BS, Excelsior College, 2015

Doctoral Study Submitted in Partial Fulfillment
of the Requirements for the Degree of
Doctor of Public Health

Walden University

February 2023

Abstract

Elderly abuse is a pervasive public health problem in the United States. Most abuse and neglect go unreported due to barriers including fear for safety, concerns about the consequences, culture, lack of knowledge about elder abuse, shame, and self-blame. However, there is limited research on how race and ethnicity impact help-seeking behaviors of the elderly. This cross-sectional quantitative study examined the difference in reporting and help-seeking behavior between African American and non-African American victims of elderly abuse. Applying the behavioral model of health services use, this study involved a secondary data analysis using the Nation Elderly Mistreatment Study Wave II survey (N = 774). Multinomial logistic regression was used to examine the difference in help-seeking behavior and perpetrator's characteristics between African Americans and non-African Americans. The results of the study showed no significant difference in reporting between African Americans and non-African Americans. Furthermore, no significant difference was observed in perpetrator characteristics between African American and non-African American victims of elder abuse. The implication for social change includes a better understanding of the reporting and help-seeking behavior of African American victims of elder abuse and enablers and barriers in reporting and help-seeking. It will also help identify mechanisms for detecting abuse and mistreatment and implementing interventions that have the potential to prevent mistreatment.

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Dedication

This final dissertation is dedicated to numerous individuals who played an essential role in my push toward this important goal and milestone in my life. As an immigrant and person born and growing up in a third-world country, this accomplishment will not have been possible without the help and support from co-workers, fellow students, and instructors.

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Section 1: Foundation of the Study and Literature Review

According to the Population Reference Bureau (PRB), life expectancy in the United States has increased from 68 years in 1950 to 78.6 years in 2017. The increase in life expectancy can be attributed to breakthroughs in science, solid and efficient economies, increased helmet use, exercise, and healthy eating, and a reduction in unhealthy behavior such as tobacco use (Frieden, 2010). This lifestyle change has led to an unprecedented increase in the older population. According to Administration on Aging (2020), 52.4 million adults were 65 and over in the United States in 2020. The number is expected to climb to 80 million by 2040 (Urban Institute, 2015), comprising 21% of the total population (Nasser, 2019).

The increase in life expectancy brought several positive developments. According to PRB (2019), education levels are increasing among the elderly; the gender gap in life expectancy is narrowing. The poverty rate has dropped from nearly 30% in 1966 to 9% today in the past 50 years (PRB, 2019). The increase in life expectancy has also brought challenges including an increase in economic disparities, chronic medical conditions and poor physical health with age, functional disability and dependence, mental health problems, cognitive deficits, and substance misuse leading to an abuse and mistreatment--a silent problem that deprives the elderly of their dignity and security (Brown, 2015).

Wong et al. (2017) define elder abuse as an intentional act, or failure to act that causes or creates a risk of harm to an older adult where it can be physical, sexual, emotional, neglect, or emotional abuse and more likely to occur in nursing homes, hospitals, and long-term care facilities. According to the World Health Organization

(2022, June 13, p. 1), “elder abuse is a single or repeated act or lack of appropriate actions, occurring within any relationship where there is an expectation of trust between, which cause harm or distress to an older person.” The Centers for Disease Control and Prevention define elder abuse as a deliberate action or inaction that endangers or raises the risk of endangering an older adult 60 years or older (2020). The abuse often occurs at the hands of a caregiver or a person the elder trusts and can take various forms, emotional or psychological, financial, physical, and sexual.

According to a study by Yon et al. (2017), psychological (11.6%), physical (2.6%), financial (6.8%), neglect (4.2%), and sexual (0.9%) abuse were self-reported in 2016. Another study by Acierno et al. (2010) found the following prevalence rate of abuses in a community setting: emotional (4.6%), physical (1.6%), financial (family; 5.2%), financial (stranger; 6.5%), neglect (5.1%), and sexual (.6%).

However, the elder abuse projection is likely an underestimate the actual prevalence (Pillemer et al., 2016). It is estimated that for every one abuse incident reported to the authorities, 24 additional cases remain unreported (Storey, 2020) due to fear of retaliation, concern about consequences, shame, perpetrators dependence, lack of knowledge, lack of an effective support network, negative stereotypes, belief in fate, and desire to remain in their communities. Abuse within communities of color is assumed to be largely hidden and underreported despite the rise in the older African American population and attendant increase in elder abuse and neglect.

This study explored the differences in reporting of abuse and help-seeking behavior between African Americans and non-African Americans, perpetrator

characteristics in African and non-African Americans elderly abuse victims. The study used the Inter-university Consortium for Political and Social Research's (ICPSR) Nation Elderly Mistreatment Study (NEMS; 2018) survey data for this secondary data analysis to explore and understand the difference in reporting and help-seeking behavior between elder abuse victims of African American and non-African American descent. It also helped understand the perpetrator characteristics, the association between education, income level, marital status, and reporting/help-seeking behavior, and the facilitator of help-seeking behavior among victims of elder mistreatment and victim characteristics.

The findings of this study provided a better understanding of the reporting and help-seeking behavior among African American elder abuse victims and identified barriers to reporting and understanding perpetrators characteristics. Moreover, the study findings could potentially support implement interventions that have the potential to prevent mistreatment, identify mechanisms for detecting abuse and mistreatment. It could also potentially support policies to increase minority representation in healthcare, law enforcement, social services, and other first responders, lead to more research to better understand elder mistreatment in a community of color, and support education to develop culturally competent law enforcement, healthcare, and social services personnel.

Section 1 explores the background, problem statement, purpose of the study, research question(s) and hypotheses, theoretical and/or conceptual framework of the study, and nature of the study. It also explores literature search strategy, literature review related to key variables and/or concepts, definitions, assumptions, scope and delimitations, limitations, significance, summary, and conclusions of the study.

Background

Elderly mistreatment is a significant public health problem in the United States and worldwide. The Centers for Disease Control and Prevention (CDC; n.d.) shows that more than 2.1 million adults over the age of 60 experience mistreatment, abuse, neglect, and exploitation each year. According to Acierno et al. (2019), 1 in 10 cognitively intact elderly participants reported experiencing neglect, abuse, or low social support. This leads to different physical, mental, and other adverse health effects on the victim. The injuries can be temporary emotional despair, depression, stress, and psychological impact on the victim. Research by Wong et al. (2017) shows enduring mistreatment's effect on the mental and physical health of the elderly, and another study by Lachs et al. (1998) shows that abuse survivors report higher rates of depression, higher rates of hospitalization, and institutionalization.

Research has been conducted on elderly mistreatment; however, a systematic review of elder abuse research has not been conducted across disciplines. This includes the limited research on reporting and help-seeking behavior in African American compared to non-African American victims of elder abuse. This study assessed the association between the variables and answers the following research questions:

Research Question 1: Is there a significant difference in reporting and help-seeking behavior between African American and non-African American victims of elder abuse while controlling for covariates of marital status, education, and income?

Research Question 2. Is there a significant difference in perpetrator characteristics (family, coworker, neighbor, a friend, some other non-relative, socioeconomic status) in African American and non-African American victims?

Problem Statement

Approximately 10% of older adults in a community-dwelling experienced elder abuse (Rosay et al., 2017). Yon et al. (2017), relying on self-reports of abuse, found that 11.6% experienced psychological abuse while physical, financial, neglect, and sexual abuse accounted for 2.6%, 6.8%, 4.2%, and 0.9%, respectively. However, much of elder abuse goes unreported to the appropriate authorities (Burnes et al., 2019) due to barriers, including fear for safety, concerns about the consequences, culture, belief, lack of knowledge about elder abuse, shame, self-blame, and fear of retaliation. Dong et al. (2014) found culture and social structure to be main barriers in reporting elder abuse among Chinese Americans. The authors found that increasing education and public health awareness, integrating social support with existing community social services, and setting up interdisciplinary mitigation efforts to facilitate victims' reporting and help-seeking behavior could assist elders experiencing abuse. However, there is no comparable research on how the help-seeking behavior of African Americans compares with non-African Americans, the barriers and facilitators of help-seeking behavior among victims of elder abuse, and victim characteristics associated with early disclosure in African Americans. Moreover, limited research exists on how marital status, education level, income, and the relationship between the victim and the perpetrators influence reporting and help-seeking behavior in the victimization of older African Americans.

Purpose of the Study

The purpose of this cross-sectional quantitative study was to compare (a) help-seeking behavior between African American and non-African American elder abuse victims; (b) perpetrator characteristics in African American and non-African American elder abuse victims; and (c) identify the association between socioeconomic status (education, income level, marital status) and reporting/help-seeking behavior in African American and non-African American elder abuse victims. The findings of this study can contribute to the body of knowledge on the facilitators of help-seeking behaviors among victims of elder abuse in minority groups. It may also have significant impact on enacting federal law to increase minority representation in healthcare, law enforcement, social services, and other first responders. Further, the findings can support the need for more research to better understand elder mistreatment in communities of color. Last, education can be developed to support culturally competent law enforcement, healthcare, and social services personnel.

Research Questions and Hypotheses

Research Question 1: Is there a significant difference in reporting and help-seeking behavior between African American and non-African American victims of elder abuse while controlling for age, education, gender, income, and marital status covariates?

*H*₀1-There is no significant difference in reporting and help-seeking behavior between African American and non-African American victims of elder abuse while controlling for age, education, gender, income, and marital status covariates.

H_{a1}-There is a significant difference in reporting and help-seeking behavior between African American and non-African American victims of elder abuse while controlling for age, education, gender, income, and marital status covariates.

Research Question 2: Is there a significant difference in perpetrator characteristics (family, coworker, neighbor, a friend, another non-relative, socioeconomic status) in African American and non-African American victims?

H₀₂-There is no significant difference in perpetrator characteristics in African American and non-African American victims.

H_{a2}-There is a significant difference in perpetrator characteristics in African American and non-African American victims.

Theoretical Framework

A theory and model are a collection of interconnected ideas, definitions, and propositions that give a systematic perspective of events or circumstances by identifying variables' relationships to explain and anticipate occurrences or situations. As Glanz et al. (2015) described, theories and models describe behaviors and provide solutions to modify them. They also predict behavior under certain conditions, and aid in describing and identifying why a problem arises. The theoretical framework is the structure that holds or supports a research study's theory and presents and discusses the theory that explains why the research problem under study exists. A thorough understanding of theories and models assists in developing more effective interventions and policies to enhance individual and public health (Heaney & Viswanath, 2015).

Behavioral Model of Health Services Use (BMHSU)

The study used Andersen's (1995) Behavioral Model of Health Services Use (BMHSU). Anderson (1995) noted that the BMHSU is a model that shows how individuals decide and take action. It is the process of deciding to act on health behavior (Glanz et al., 2008). The BMHSU was designed to predict and explain the use of formal healthcare services using enabling factors that facilitate use and perceived barriers to seeking care. The framework has been successfully used before, including in Burnes et al. (2019), where it was used to predict and explain the service utilization by victims of elder abuse. Moreover, BMHSU was effectively used in understanding help-seeking among victims of intimate partner violence (Fleming & Resick, 2017). The BMHSU can help explain how different groups recognize elder abuse and neglect, report to the appropriate authority and seek medical intervention. In the BMHSU model, service utilization in the form of reporting and seeking help is predicted by a person's predisposing factors, enabling factors, and need factors. According to the BMHSU, higher levels of service consumption are predicted by stronger predisposing sociostructural/status advantage, enabling resources, and need.

The BMHSU has three major constructs: Predisposing factors, enabling factors and the need factor. As Anderson (1995) noted, *predisposing factors* are the sociocultural characteristics of individuals that exist before their illness. In elder abuse and neglect, this includes race/ethnicity, age, education, gender, and marital status.

- Race/Ethnicity: Systemic oppression and racism put African Americans at increased risk of further mistreatment and exploitation. Low education

attainment compared to non-African Americans--mostly low-paying occupation, and social interactions are other social predisposing factors that may enhance abuse and limit access to service.

- Age and gender. According to Enguidanos et al. (2014), African Americans' reluctance to openly expose and denounce intra-family elder abuse stems from a strong feeling of filial and community devotion. Protective of family members who mistreat others, older adults are hesitant to subject them to criminal justice and perhaps jail, indicating a proclivity to underreport harms (Enguidanos et al., 2014).
- Education: Attitude, values, and knowledge that people have concerning and towards the health care system. This includes recognizing abuse and neglect as a health issue and seeking appropriate care. According to Noonan et al. (2016), 35% of African Americans believe that health is a fate and dependent on destiny, while 50% feel health is a high priority.
- Marital Status: According to the World Health Organization (n.d.), marital status may be associated with an elevated risk of abuse whereas according to Conrad et al. (2019), 70% of elder abuse perpetrators were unmarried at the time of the offense.

Enabling Factors is the second major construct of the BMHSU and includes the logistical aspect of obtaining care. In elder abuse and neglect, this includes: household income, social support, and relationship separated into two domains, personal/family and community or social support.

- *Personal/Family*: The means and know-how to access health services, income, health insurance, a regular source of care, travel, extent, and quality of social relationships. Generally, the U.S. has made substantial progress in improving residents' health and reducing health disparities, but ongoing racial/ethnic, economic, and other social differences in health are both unacceptable and correctable (CDC, 2011). These barriers to health care affect the minorities such as African Americans, Latinos, Native Americans, Asian Americans, and Pacific Islanders. Consequently, racial and ethnic minority groups in the United States excessively lack access to affordable healthcare coverage or insurance, lack access to health care, and encounter worse health outcomes from preventable and treatable conditions.
- *Community or social support*: This includes available health personnel, facilities, diversity in the healthcare system, and healthcare leadership. According to the National Center for Health Workforce Analysis (the National Center), Blacks or African Americans make up 11.6% of the U.S. health workforce compared to White making 64.4% of the health workforce.

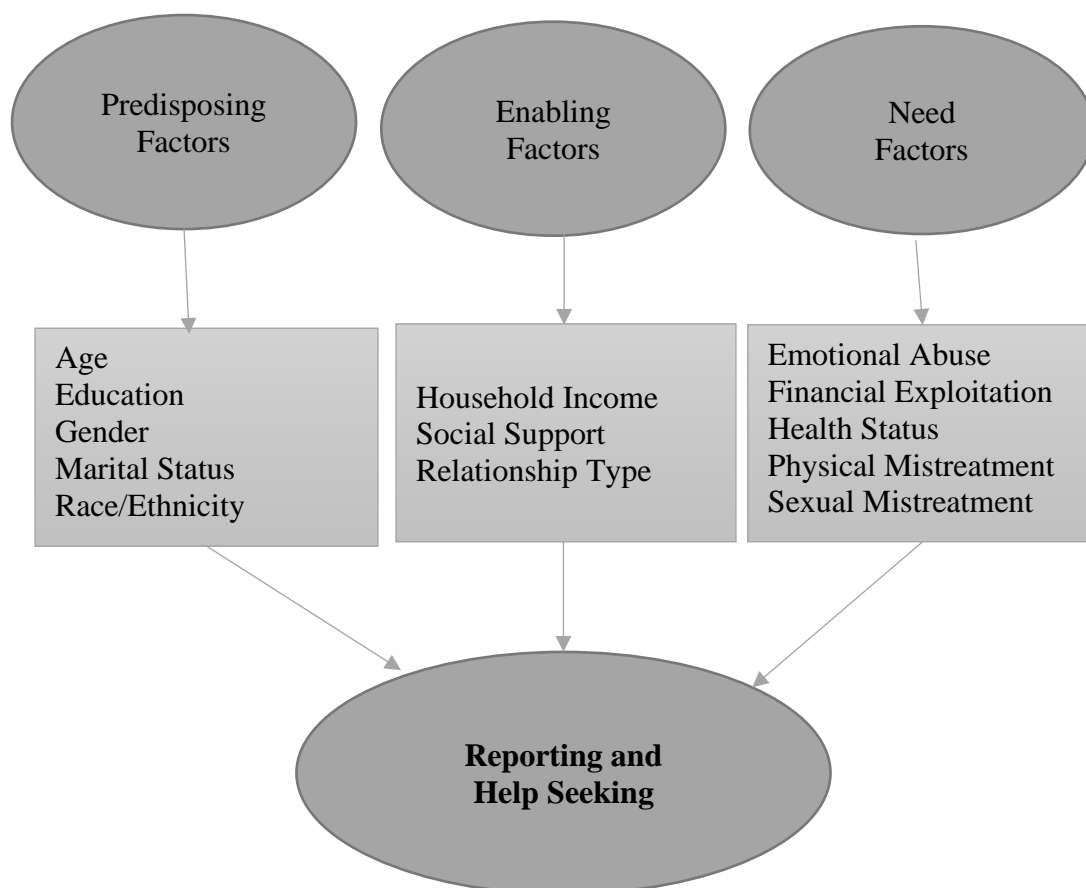
The third major construct of the BMSHU is the Need Factors which can be need perceived by the person and need based on a professional evaluation. Need factors are the most urgent source of health service usage, resulting from functional and health issues that necessitate the use of services in the form of reporting and help-seeking. This includes emotional abuse, financial exploitation, physical mistreatment, sexual abuse, current diagnosis of mental illness, current or past abuse of drugs or alcohol, current

physical health problem, high levels of stress and substance use problem or history.

Figure 3 is a visual depiction of how the three constructs relate to supporting and help seeking behaviors.

Figure 1

Behavioral Model of Health Service Use



Perceived: This is how people perceive their overall health and functional status, how they feel symptoms of sickness, pain, and health concerns, and whether or not they

believe their problems are of sufficient relevance and severity to seek professional assistance (Andersen, 1995).

Evaluated: This represents a professional opinion and recommendation regarding people's health and the necessity for medical care (Andersen, 1995).

Nature of the Study

The specific research design included a secondary data analysis using the cross-sectional data collected from 2015 to 2018 in Wave II of the NEMS survey to address the research questions in this quantitative study. The variables (the dependent, independent, and covariates) that were used in the study are nominal (racial group, reason for not reporting, and marital status) and ordinal variables (level of education, household income). As a result, multinomial logistic regression was the appropriate statistical test to predict the dependent variables based on the independent variables. The data analysis included univariate, bivariate, and multivariate assessments. The study also used descriptive statistics to describe and summarize the data and use multinomial logistic regression to compare reporting and help-seeking in African Americans and non-African Americans.

Literature Search strategy

Various techniques were employed to identify relevant literature and several databases were researched. Keywords searched included *facilitator*, *help-seeking*, *behavior*, *elder*, *mistreatment*, *victim*, *early disclosure*, *responses*, *services*, and *engagement*. The literature review concentrated on recent literature published after 2015 and focused more on seminal literature and recent peer-reviewed literature. The primary

databases employed in the literature search/review were Academic Search Complete, Google Scholar, Walden University Library, ScienceDirect, Journal Storage (JSTOR), Pubmed, PubMed Central (PMC), The National Center for Biotechnology Information (NCBI), and more importantly the National Center on Elder Abuse (NCEA). The National Center for Elder Abuse (NCEA) solely focuses on elder abuse research and publishes comprehensive, annotated bibliographies of recent research studies and articles on elder mistreatment and neglect. With each bibliography, NCEA provides a summary of the recent research article, a citation, abstract, and weblink to gain access to the document.

Literature Review Related to Key Variables and Concepts

Research

Elder mistreatment is relatively new in the United States, and it first appeared in the research in the 1970s (Carney, 2020). However, the formal efforts to help vulnerable elders began at least 2 decades before when Congress passed legislation in 1950 which provided funds to the states on a three-to-one matching basis for setting up adult protective service units for victims of elder abuse. The research on elder abuse started growing recently. However, the subject is still understudied, and funding lags behind other similar issues.

Prevalence

The proportion of the population aged 65 and older has increased significantly since 1950. The population of the United States, age 60 and older, increased by 188% between 1950 and 2000 (Eberhardt et al., 2001, Hetzel and Smith, 2001). According to

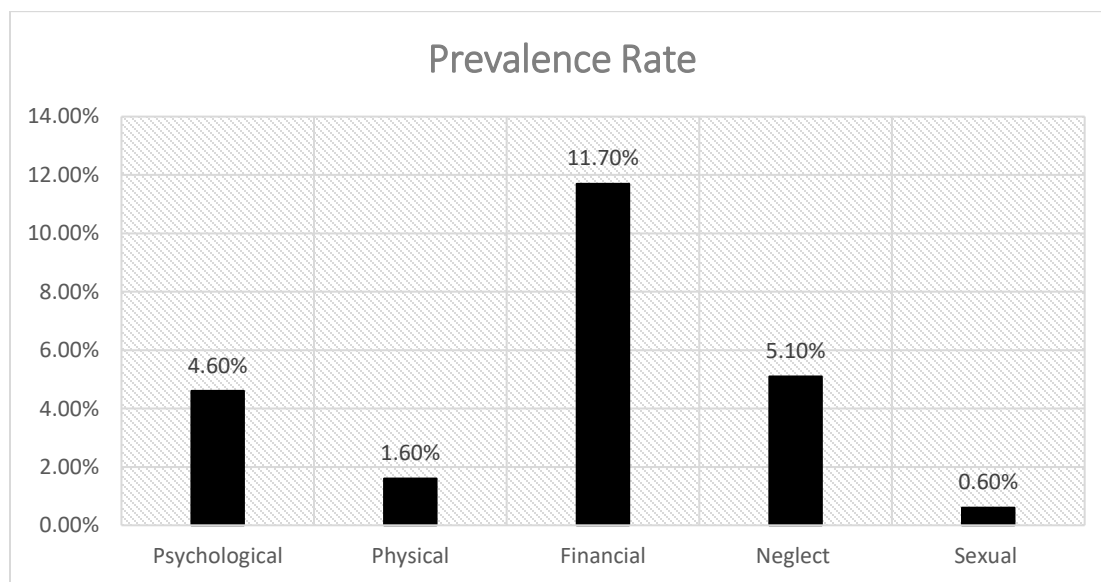
the Administration on Aging (2020), 52.4 million adults 65 and over were in the United States in 2018. The number is expected to climb to 80 million by 2040 (Urban Institute, 2015), comprising 21% of the total population (Nasser, 2019). With this increased life expectancy, increases in age-related diseases and disabilities requiring long-term care facilities such as skilled or intermediate nursing facilities, assisted living facilities, board, care homes, and adult foster homes are expected.

The aging population are susceptible to abuse and mistreatment, including financial, physical, sexual, and emotional abuse by others, including their caregivers. According to Acierno et al. (2010), approximately one in 10 older adults in community-dwellings experienced elder abuse. Different study shows that prevalence varies across studies. A study by Yon et al. (2017), conducted relying on self-reports of abuse, revealed that 11.6% experienced psychological abuse while physical, financial, neglect, and sexual abuse accounted for 2.6%, 6.8%, 4.2%, 0.9%, respectively. Another study by Acierno et al. (2009) conducted on older adults residing in community housing found 4.6% experienced emotional abuse, 1.6% experienced physical abuse, 11.7% experienced financial abuse, 5.1% experience potential neglect, and 0.6% experienced sexual abuse. Another study by Yon et al. (2019) found prevalence estimates for abuse reported by older adults highest for psychological abuse (33.4%), followed by physical (14.1%), financial (13.8%), neglect (11.6%), and sexual abuse (1.9%).

Table 1*Elderly Abuse Prevalence*

Abuse Type	Prevalence Rate
Psychological	4.6%
Physical	1.6%
Financial	11.7%
Neglect	5.1%
Sexual	0.6%

Note. Adapted From *National Elder Mistreatment Study*, by R. Acierno, M. Hernandez-Tejada, W. Muzzy, and K. Steve, 2009.

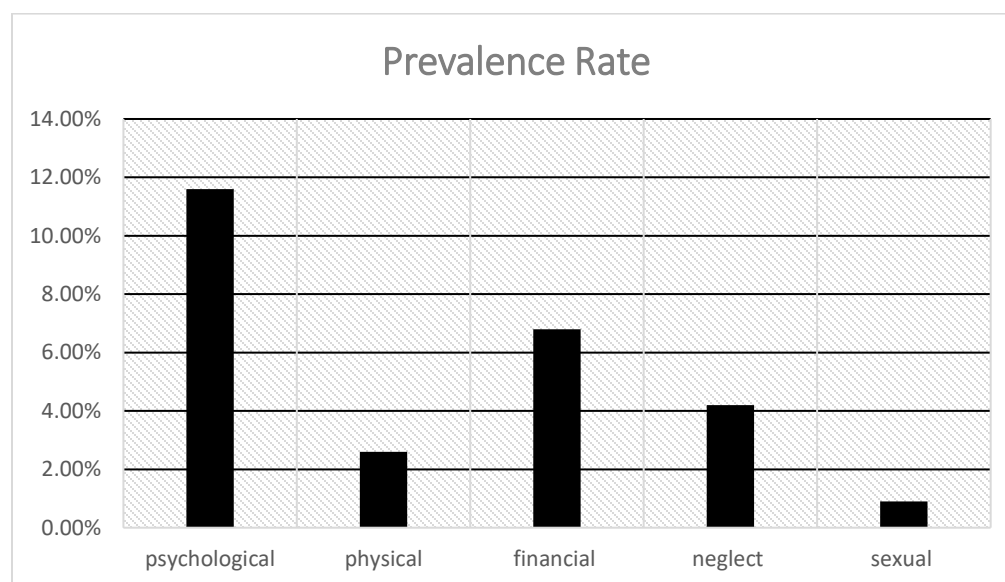
Figure 2*Elderly Prevalence*

Note. Adapted from *National Elder Mistreatment Study*, by R. Acierno, M. Hernandez-Tejada, W. Muzzy and K. Steve, 2009.

Table 2*Elderly Prevalence per Yon et al.*

Abuse Type	Prevalence Rate
Psychological	11.6%
Physical	2.6%
Financial	6.8%
Neglect	4.2%
Sexual	0.9%

Note. Adapted from *the Lancet Global Health*. By Y. Yon, C.R. Mikton, Z. D. Gassoumis and K. H. Wilber, 2017.

Figure 3*Elderly Prevalence Rate per Yon et al.*

Note. Adapted from the *Lancet Global Health*. By Y. Yon, C.R. Mikton, Z. D. Gassoumis and K. H. Wilber, 2017

Types of Elder Mistreatment

Elder abuse can take five forms: physical abuse, emotional abuse, abuse, financial abuse, sexual abuse and neglect. Physical abuse is an intentional or reckless act that causes bodily harm, bodily injury, physical pain, or impairment. In contrast, emotional or psychological abuse are the use of verbal or nonverbal behaviors such as verbal assaults, insults, threats, intimidation, humiliation, isolation, and harassment to inflict anguish, mental pain, fear, or distress on an older adult (Wallace et al., 2017). According to Wallace et al. (2017), financial abuse is the illegal use of money, benefits, belongings, property, or assets for the benefit of someone other than the older adult, while sexual abuse is unwanted sexual interaction with the older adult. This unwanted sexual interaction includes unwanted touching, sexual assault or battery, sexual harassment, and sexual interaction with elders who cannot give consent (Band-Winterstein et al., 2021; Wallace et al., 2017). Neglect is the failure to meet an older adult's basic needs, including food, water, shelter, clothing, hygiene, and essential medical care (Wallace et al., 2017).

Impact of Elder Abuse

Elderly abuse is a serious health and socio-economic problem. The effect of elder mistreatment on the individual can range from minor scratches to mental and physical effects and even mortality. Mental and physical injuries can range from temporary depression to lasting psychological effects. Abuse survivors report higher rates of depression, higher rates of hospitalization, and institutionalization, more likely to be admitted to nursing homes and emergency department visits than those not facing similar abuse. According to the CDC more than 643,000 older adults were treated in the

emergency department for nonfatal assaults, and over 19,000 homicides occurred between 2002 and 2016. Moreover, they have lower access to support systems, leading to a higher mortality rate than older adults who were not mistreated. Studies showed that victims of elder abuse are twice more likely to die prematurely than people who are not victims of elder abuse (Lachs et al., 1998).

A 13-year follow-up study conducted on 176 adults, elders with history of mistreatment, had worse survival rate than either those seen for self-neglect or other non-investigated cohort members. The economic impact is another consequence of elder abuse (Lachs et al., 1998), and elder abuse is estimated to add more than \$6.3 billion to the annual health care expenditure in the U.S. Moreover, a report by the U.S. surgeon general shows that Older Americans lose an estimated \$2.9 billion a year due to financial exploitation.

Definitions

The following are terms and concepts used in this research study:

Abandonment: CSC (2016) defines abandonment as “the desertion of an elderly person by an individual who has assumed responsibility for providing care for an elder, or by a person with physical custody of an elder.”

Abuse: Abuse is a form of mistreatment by one individual that causes harm to another person, including slapping, hitting, beating, bruising, or causing someone physical pain, injury or suffering; creating emotional pain, distress or anguish through the use of threats, intimidation or humiliation; the misuse, mishandling or exploitation of property possessions or assets of adults.

Behavioral Model of Health Services Use (BMHSU): The BMHSU is a health behavior model first developed in the 19060s and has gone through four phases. It was designed to predict and explain the use of formal healthcare services, enabling or impeding factors that facilitate use and perceived barriers to seeking care.

Covariates: Variables that can influence the outcome or the dependent variable include gender, household income, marital status, and schooling. These variables are assumed to influence reporting and helping-seeking behavior of abuse and neglect victims. The code for the covariates in the data include: D4-marital status, D8-highest level of school completed, D10-total household income.

Dependent variable: The dependent variable is a variable whose value depends on another variable, also called the independent variable. In this study, the dependent variable is help-seeking behavior in the form of reporting abuse and neglect incidents to the appropriate authorities. The value is available directly from the NEMS Wave II survey data and represented by FIN7, EA15, PM15, and SM16 for financial, emotional, physical, and sexual abuse reporting, respectively, in the dataset.

Education Level: Highest education completed by the survey participant.

Elder: This refers to an individual 60 and over.

Elder Abuse/Mistreatment: an intentional act or failure to act that causes or creates a risk of harm to an older adult where it can be physical, sexual, emotional, neglect, or emotional abuse and more likely to occur in nursing homes, hospitals, and long-term care facilities.

Emotional/Psychological Abuse: Emotional or psychological abuse is the use of verbal or nonverbal behaviors such as verbal assaults, insults, threats, intimidation, humiliation, isolation, and harassment to inflict anguish, mental pain, fear, or distress on an older adult (Wallace et al., 2017).

Exploitation: CDC (2016) defines exploitation as “The fraudulent or otherwise illegal, unauthorized, or improper act or process of an individual, including a caregiver or fiduciary, that uses the resources of an older individual for monetary or personal benefit, profit or gain, or that results in depriving an older individual of rightful access to, or use of, benefits, resources, belongings, or assets.”

Financial Abuse: According to Wallace et al. (2017), financial abuse is the illegal use of money, benefits, belongings, property, or assets for the benefit of someone other than the older adult.

Gender: A socially constructed characteristics of a person.

Help-Seeking: As cited in Rickwood et al. (2012), help-seeking is “an attempt to find (seek) assistance to improve a situation or problem (help).”

Independent variable: Its value is independent of other variables in the study. In this study, the independent variable is race/ethnicity represented by the code D7 in the dataset. The attribute for the variable will be obtained directly from the dataset.

Income Level: Annual income of the family or household

Neglect: Neglect is the failure to meet an older adult’s basic needs. This includes food, water, shelter, clothing, hygiene, and essential medical care (Wallace et al., 2017).

Older Adult: This refers to those adults 60 and over.

Physical Abuse: Physical abuse is an intentional or reckless act that causes bodily harm, bodily injury, physical pain, or impairment.

Race/Ethnicity: Race/ethnicity are concepts used to categorize certain sections of the population based on outward physical characteristics and some commonalities of culture and history.

Risk Factors: Factors that the older individual more vulnerable. Such factors include but are not limited to systematic oppression, discrimination, racism and segregation, health disparities, economic hardships, chronic medical conditions and poor physical health, functional disability and dependence, mental health problems, cognitive deficits, and financial dependence.

Self-neglect: CDC (2016) define self-neglect as “An adult’s inability, due to physical or mental impairment or diminished capacity, to perform essential self-care tasks including-Obtaining essential food, clothing, shelter, and medical care; Obtaining goods and services necessary to maintain physical health, mental health, or general safety; or Managing one’s financial affairs.”

Sexual Abuse: Sexual abuse is unwanted sexual interaction with older adults. This unwanted sexual interaction includes unwanted touching, sexual assault or battery, sexual harassment, and sexual interaction with elders who cannot give consent (Wallace et al., 2017; Band-Winterstein et al., 2021).

Social Support: The existence of care giver, social facilities, having family or other people in the community to turn into and able to obtain support when needed.

Vulnerability: Financial, physical, or emotional dependence on others or

impaired capacity for self-care or self-protection.

Assumptions

The first assumption was that the sample was random, representative of the population, and generalized nationally. It is assumed that the study participants were truthful and accurate in their responses to the surveys and interviews and free of outside influence. It is also assumed they understand the sources and causes of abuse, neglect, and exploitation. Moreover, it is assumed that no significant difference exists between different cultures in elder mistreatment and neglect conceptual understanding. This assumption is necessary given the big difference in perception and understanding of elder abuse in a different culture. A lack of consistency in definitions and data elements on elder mistreatment across jurisdictions makes it challenging to measure elder mistreatment and identify trends (Carney, 2020).

Scope and Delimitations

The study used the National Elder Mistreatment survey data to compare help-seeking behavior between African American and non-African American elder abuse victims; perpetrators characteristics in African and non-African American elder abuse victims; an association between socioeconomic status (education, income level, marital status) and reporting/help-seeking behavior in African American and non-African American elder abuse victims. The scope of the investigation was to those who reported mistreatment in Wave I. The researcher collected data to measure the effects of elder abuse on health, mental health outcomes, criminal justice system participation, and satisfaction. According to Acierno (2018), the original sample was selected using

stratified random digit dialing with an area probability sample based on Census-defined 'size of place' parameters. The continental US served as the sampling location, indicating a random sample representing the population.

As a result, caution must be exercised when making generalizations based on the findings of this study, as delimitations and limitations both apply to this quantitative analysis. Delimitation of the study includes:

1. The survey only involved locatable participants who reported psychological, physical, or sexual (but not financial) abuse at Wave I.
2. Incomplete data due to under-reporting in self-survey, which is common in rural communities.
3. The survey was also based entirely on self-report, which are often under-reported in this age group, and thus the validity of estimates is less than perfect

As Acierno (2018) described, there was a lack of cooperation from the study participants. The researcher only collected from those able to locate and contact. According to the author, cooperation rates were 66% for the NEMS Wave I since the age 60 mistreated group and 57% for the comparison group for a total follow-up NEMS Wave II sample.

Limitations

Research study limitations, as defined by Ross et al. (2019), represent weaknesses within a research design that may influence outcomes and conclusions of the research. A relevant presentation of the research limits should define the potential constraint, explain the importance, suggest alternate options, and discuss efforts to reduce the limitation.

One of the weaknesses of this research study is the lack of reliable tools to measure the prevalence of elderly abuse in the community accurately. According to Acierno (2018), the data were incomplete due to under-reporting in self-survey. The survey was based entirely on self-report, often under-reported in this age group, particularly in a minority group. As Acierno (2018) described, there was also a lack of cooperation from the study participants. According to the author, the cooperation rate was 66% for the NEMS Wave I since the age 60 mistreated group and 57% for the comparison group for a total follow-up NEMS Wave II sample. Thus, I recommend future research should be based on data collected with more reliable tools such as Elder Abuse Suspicion Index (EASI), Hwalek-Sengstock Elder Abuse Screening Test (H-S/EAST), or Vulnerability to Abuse Screening Scale (VASS). The other potential limitation of the research study comes from the currency of the data collected during 2016. The survey data were from participants who reported being victims of psychological, physical, or sexual mistreatment since age 60 at Wave I-selected in 2008 and may not represent the current demography. As a result, more research with sources published in the past 2-3 years is recommended since these sources are more current and reflect the newest sampling, data collection, processes, or best practices.

Significance

This study is significant in that while data show a steady increase in research on elder abuse, the area still lags behind other comparable issues such as child abuse and intimate partner violence in research and funding. In particular, to the best of my knowledge, recent research on how reporting and help-seeking behavior in African

Americans compare with non-African Americans elderly abuse victims are under-studied and limited. There is also little research on the perpetrator's characteristics, how the perpetrator's relationship with the victim influences reporting and help-seeking in the African Americans and how the victim's marital status, education level, and income influences reporting and help-seeking behavior in a victim of older abuse in African Americans group.

The significance of this study is that it may also provide a better understanding of the reporting and help-seeking behavior in elder abuse victims of African Americans and identify barriers to reporting. It will also contribute to the knowledge base of the facilitator of help-seeking behavior among victims of elder abuse and victims' characteristics associated with early disclosure and how socioeconomic status (education level, income, marital status) and the relationship between the victim and the perpetrator affect the help-seeking behavior of victim in the African American. Understanding the barriers and fascinators in reporting, help-seeking, and understanding the perpetrator's characteristics is essential in designing strategies and tailoring an educational intervention to help increase reporting and detection of elder mistreatment in the African American community. Moreover, the study finding will help enact federal law to increase minority representation in healthcare, law enforcement, social services, and other first responders; more research to better understand elder mistreatment in a community of color; education to develop culturally competent law enforcement, healthcare, and social services personnel.

Summary

Elderly abuse is a public health and social problem in the United States and worldwide. According to Rosay et al. (2017), approximately one in ten community-dwelling older adults experienced some form of elder abuse the prior year. Several studies showed that elder abuse is underreported, and research by Storey (2020) showed that nearly 24 additional cases remain undetected for every incident of abuse reported to authorities. This is due to barriers, including fear for safety, concerns about the consequences, culture, belief, lack of knowledge about elder abuse, shame, self-blame, and fear of retaliation. It is more likely to go unreported in minority groups such as African Americans, subsequently allowing the abuse to continue and the elder abuse suspect to go unpunished. According to Enguidanos et al. (2014), African Americans' reluctance to openly expose and denounce intra-family elder abuse stems from a strong feeling of filial and community devotion. Protective of family members who mistreat others, older adults are hesitant to subject them to criminal justice and perhaps jail, indicating a proclivity to underreport harms (Enguidanos et al., 2014).

There is little research study on how reporting and help-seeking behavior in African Americans compare to non-African Americans. This quantitative study will help understand the difference in reporting and help-seeking behavior between African Americans and non-African Americans elderly abuse victims; examine the association between education, income level, marital status, and reporting/help-seeking behavior in elder abuse victims; examine the difference in perpetrator characteristics in African Americans and non-African Americans.

Multiple regression was used to examine a significant difference in reporting and help-seeking behavior between elder abuse victims of African American and non-African Americans; an association between education, income level, marital status, and reporting/help-seeking behavior in elder abuse victims; the difference in perpetrator characteristics in African Americans and non-African Americans. Social change's implication includes enacting federal law to increase minority representation in healthcare, law enforcement, social services, and other first responders; more research to better understand elder mistreatment in a community of color; education to develop culturally competent law enforcement and healthcare and social services personnel.

This study has four sections. Following is Section 2, which includes research design and data collection, presenting research design and rationale, methodology, sampling and sampling procedures used to collect data, the validity of the research, and ethical procedures.

Section 2: Research Design and Data Collection

This quantitative study sought to compare (a) help-seeking behavior between African American and non-African American elderly abuse victims; (b) perpetrator characteristics in African and non-African Americans elderly abuse victims; (c) an association between socioeconomic status (education, income level, marital status) and (d) reporting/help-seeking behavior in African American and non-African American elderly abuse victims. The study used multinomial logistic regression to examine these four elements of the study. Section 2 includes research design and rationale, methodology, population, sampling procedures used by original creators of the data set, instrumentation and operationalization of constructs, operationalization for each variable, data analysis plan, threats to validity, ethical procedures, and a summary.

Research Design and Rationale

This cross-sectional quantitative research study used multiple regression to compare the difference in reporting and help-seeking behavior between older African American and non-African American victims. The study variables were the racial group (the independent variable) and reporting and help-seeking (dependent variable). The covariates included education, income level, and marital status. The study variables (the dependent, independent, and covariates) were nominal (racial group, reason for not reporting, and marital status) and ordinal variables (level of education, household income). As a result, multinomial logistic logic regression is the appropriate statistical test to predict the dependent variables based on the independent variables.

Methodology

Population

The secondary data identified for the topic was the "National Elder Mistreatment Study: 5 Year Follow-up of Victims and Matched Non-Victims, United States, 2015-2018", ICPSR. The data includes measures of elder abuse's effects on health and mental health outcomes. It also includes criminal justice system participation and satisfaction and specifies additional predictors of these effects (Acierno, 2019).

The Wave II sample was a subset of the Wave I sample collected during 2008 by the Abt SRBI survey research firm. The Wave I was a 5,777 size, while the follow-up NEMS Wave II was also collected by Computer-Assisted Telephonic Interview or CATI in 2016 under the direction of AbtSRBI and involved 774 older adults (older than 60) who previously participated in Wave I study and had reported psychological, physical, or sexual abuse. The data also contained 591 randomly selected nonvictim samples for comparison purposes and included over 192 variables, with different levels of measurements, mostly with continuous/ratio levels of measurement, making multiple regression an appropriate statistical test.

While the original survey was for prevalence estimates, the follow-up survey was collected with computer-assisted telephone interviews over 4 years—from January 1, 2015, to December 31, 2018—to measure the effects of elder abuse in terms of (a) health and mental health outcomes and (b) criminal justice system participation and satisfaction, as well as to specify additional predictors of these effects (Acierno, 2019).

Sampling and Sampling Procedures Used to Collect Data as Described in Secondary Data Materials

The NEMS Wave II sample (774) was a subset of the Wave I sample (5,777 adults age 60 and above), collected during 2008 by the AbtSRBI survey research firm. The firm selected the sample using stratified random digit dialing with an area probability sample based on Census-defined 'size of place' parameters with the continental United States serving as the sampling location, indicating random sample indicating representative of the population. The follow-up NEMS Wave II was also collected by CATI in 2016 under the direction of AbtSRBI and involved 774 older adults (older than 60) who previously participated in Wave I study. The sample consisted of 183 victims who reported psychological, physical, or sexual abuse in Wave I. The sample also contained 591 nonvictims for comparison purposes. The nonvictims were also randomly selected from the Wave I sample and who did not report psychological, physical, or sexual abuse. The survey data included over 192 variables, with different levels of measurements, mostly with continuous/ratio levels of measurements, making multiple regression an appropriate statistical test.

Data Accessibility and Permission

Acierno collected the survey data (2018), funded by the Department of Justice, to understand the effects of elder abuse identified in Wave I survey in terms of (a) health and mental health outcomes and (b) criminal justice system participation and satisfaction, as well as to specify additional predictors of these effects. However, the data are maintained by the ICPSR, which provides access to various science data for research.

The original survey data contain restricted data and requires completion of a restricted data use agreement, valid reasons for the request (such as doctoral degree requirement), and an IRB approval letter or notice of exemption. IRB approval was granted, approval number for this study was 03-28-22-0997906, lasting to the end of the study.

Instrumentation and Operationalization of Constructs

The ICPSR maintains and provides access to various science data for research. The ICPSR is an international consortium of over 750 academic institutions and research organizations that provides leadership and training in data access, curation, and analysis methods to the social science research community (ICPSR, 2021). The ICPSR maintains data archive of over 250,000 social and behavioral science research; involved in educational activities including “the Summer Program in Quantitative Methods of Social Research, a comprehensive curriculum of intensive courses in research design, statistics, data analysis, and social methodology” (ICPSR, 2021).

Table 1 contains variables to operationalize research questions. The variables include racial categories, gender, marital status, education level, household income, and help-seeking (Reporting incidence of abuse to police or other authorities).

Table 3*Operational Definition of Variables*

Name	Type of Measurement	Definition	Variable
Race/Ethnicity (Independent Variable)	Nominal	Race of Respondent	1=American Indian or Alaskan Native 2=Asian 3=Black or African American 4=Native Hawaiian or Other Pacific Islander 5=White 6=Latino 7=Other 8=Don't know 9=Refused
Marital Status (Confounder)	Nominal	Marital Status	1=Married 2=Living as couple 3=Separated 4=Divorced 5=Widowed 6=Single or never married 8=Don't know 9=Refused
Education Level (Confounder)	Ordinal	Highest level of education completed	1=High School (no diploma) 2=High school graduate 3=Some college (no degree) 4=Associate Degree (AA) 5=Bachelor's Degree 6= Some graduate or professional school (no degree) 7= Graduate or professional school degree (MA, MS, PHD, etc.) 8=Don't know 9=Refused
Household Income (Confounder)	Ordinal	Total yearly household income before tax	1= \$10,000 or Less 2= Between \$10,001 and \$20,000 3= Between \$20,001 to \$35,000 4= Between \$35,001 to \$50,000 5= Between \$50,001 to \$75,000 6= Between \$75,001 to \$100,000 7= More than \$100,000 8= Don't know 9= Refused
Gender (Confounder)	Nominal	Sex of respondent	1=Male 2=Female
Help-seeking (Dependent)	Nominal	Reporting incidence of abuse to police or other authorities	1=Yes 2=No 3=Don't know 4=Refused

Data Analysis Plan

This study used the IBM SPSS (version 25) software to analyze the data. SPSS is an easy-to-use, flexible, scalable software package for statistical analysis, making SPSS

accessible to users of all skill levels. The application supports both hypothesis testing and hypothesis generation. The variables in the data are nominal (racial group, reason for not reporting, and marital status) and ordinal variables (level of education, household income), making multiple regression an ideal statistical test. The study will seek to answer the following research question and hypotheses:

Research Question 1: Is there a significant difference in reporting and help-seeking behavior between African American and non-African American victims of elder abuse while controlling for age, education, gender, income, and marital status covariates?

H01-There is no significant difference in reporting and help-seeking behavior between African American and non-African American victims of elder abuse while controlling for age, education, gender, income, and marital status covariates.

Ha1-There is a significant difference in reporting and help-seeking behavior between African American and non-African American victims of elder abuse while controlling for age, education, gender, income, and marital status covariates.

Research Question 2: Is there a significant difference in perpetrator characteristics (family, coworker, neighbor, a friend, another non-relative, socioeconomic status) in African American and non-African American victims?

H02-There is no significant difference in perpetrator characteristics in African American and non-African American victims.

Ha2-There is a significant difference in perpetrator characteristics in African American and non-African American victims.

The statistical test used in the study was multinomial logistic regression to predict the dependent variables based on the independent variables. The data analysis also included univariate, bivariate, and multivariate assessments. Furthermore, I used descriptive statistics to describe and summarize the data and multinomial logistic regression to compare reporting and help-seeking in African and non-African Americans. Multinomial logistic regression assumes binary or ordinal dependent variables, the absence or no multicollinearity among independent variables, and the linearity of independent variables (a linear relationship between these variables and their respective logit-transformed outcomes). Independent observation (independent variable selection), lack of strongly influential outliers, and independence of errors (all sample group outcomes are separate from each other) are also different assumptions in logistic regression. The first assumption is a binary or ordinary dependent variable and can be verified by examination of the variables. The dependent variable (variable of interest) in the study is help-seeking in the form of reporting. The second assumption is the absence of multicollinearity, which can be assessed using SPSS.

Multicollinearity can be assessed in two ways using SPSS: correlation coefficients and variance inflation factor (VIF) values. Correlation Coefficients of 0.80 or higher shows strongly correlated (multicollinear), which is an issue. The other way to test for multicollinearity is using the VIF, where values of 5 or larger are an issue and violate the assumption. Dropping the offending variable from the analysis or equation will correct multicollinearity violation. There are different ways to assess the assumption, "linearity in the logit for any continuous independent variables," including creating a statistical

term representing the relations between each continuous independent variable and its natural logarithm. The solution for violation in linearity in the logit for any continuous independent variables includes dummy coding the independent variable or statistically transforming it into a different scale. The other assumption in multinomial logistic regression is the lack of strongly influential outliers. Assessment of outliers occurs by looking at the difference between predicted and actual outcomes or residuals. Corrective action for outliers includes eliminating the outliers with a particularly strong influence on the model or retaining outliers whose effect is not dramatic. SPSS is the software for statistical analysis, and statistical significance is assumed for an alpha value of 0.05.

Threats to Validity

Validity is the strength of the study's conclusions, inferences, and propositions. Different types of validity exist in research: Internal, external, construct, and conclusion validity. Internal validity is the degree to which the results are attributable to the independent variable. Shadish et al. (2002) identified nine factors other than the independent variable that is a threat to the internal validity and affect the dependent variable: History, maturation, testing, instrumentation, statistical regression, selection bias, research reactivity, and attrition. External validity refers to the generalizability of the study or whether the causal relationship p holds over variation in persons, settings, treatment, and measurement variables (Shadish et al., 2002). Boston University School of Public Health (n.d) identifies the following threat to external validity: Interaction of selection and treatment, the interaction of testing and treatment; interaction of setting and treatment; interaction of history and treatment, and multiple treatment threats.

External validity

External validity is the degree to which the study results are generalizable to the population that the sample is thought to represent (Patino et al., 2018). The potential threat to external validity includes the selection or sampling bias and the Hawthorne effect. The sample was a subset of the same participants used in Wave I to measure the impact of elder abuse. The original sample was selected in 2008 and may not represent the country's current population. The Hawthorne effect was another external threat to the generalizability of the study. As Acierno (2018) described, there was a lack of cooperation from the study participants. According to the author, cooperation rates were 66% for the NEMS Wave I since the age 60 mistreated group and 57% for the comparison group for a total follow-up NEMS Wave II sample of 774. The researcher only collected from those able to locate and contact.

Internal Validity

Internal validity is the extent to which the results are attributable to the independent variable and not some other rival explanation (Patino et al., 2018). There are primarily two factors that could affect the study's internal validity. These include: Instrumentation and confounding. Instrumentation is a change in how the dependent variable is measured during the study. In elder abuse survey, there was no reliable tools for data collection. Most, elderly abuse surveys are self-reported survey which may not be accurate. Confounders are variables that distorts the association between the exposure and the outcome. In the study, the variables such as marital status, education and income level have the potential to unduly influence the result of the research. "Confounding can

be controlled in either the design phase, the analysis phase, or a combination of the two." (Aschengrau & Seage, 2020). Random assignment is one method to ensure the effect of confounding variables is equal among the treatment groups, and Non-random assignment will lead to an unbalanced group. Confounding can occur because the study was designed in such a way that two or more things differ at once, or because we assign treatments non-randomly or because the randomization "failed." (Aschengrau & Seage, 2020).

Ethical Procedures

The dataset for this study is "National Elder Mistreatment Study: 5 Year Follow-up of Victims and Matched Non-Victims, 2015-2018". As Acierno (2018) stated, the data were collected as a five-year follow-up to the first National Elder Mistreatment Study and the Inter-university Consortium for Political and Social Research (ICPSR). However, the National Archive of Criminal Justice Data (NACJD) maintains and distributes the dataset. ICPSR's goal is to acquire and preserve data, provide open access, and promote effective use of the data.

The data included measures of elder abuse's effects on health and mental health outcomes. It also includes criminal justice system participation and satisfaction and specifies additional predictors of these effects (Acierno, 2019).

The Inter-university Consortium for Political and Social Research (ICPSR) data has two forms; public-use data and restricted data. The public-use data files in the Inter-university Consortium for Political and Social Research (ICPSR) collection are available for access by the general public. In general, restricted data files are restricted and not available for direct download from the website. Access to the restricted data require

completing a Restricted Data Use Agreement, the reasons for the request (degree completion, appointment at research institution), an IRB approval or notice of exemption for their research, project description, and an approved security plan. However, Walden University is the ICPSR member institution. As part of that membership, the Walden community has access to the secondary data and require creating an account with the @waldenu.edu email address.

The study involved secondary data analysis. According to Tripathy (2013), the amount of identifying information in secondary data varies, and the level of review by the Institutional Review Boards differs accordingly. Data does not require a full review by the ethical board if the data has no identifying information, is entirely devoid of such information, or coded appropriately. The researcher does not have access to the codes.

Appropriate measures were taken to address the possible ethical issues identified above. Consent was one of the possible ethical issues in the data collection for this study. Tripathy (2013) noted that the potential harm to the individual subjects and the return of consent is the primary concern in secondary data analysis. Notice and informed consent process ensure the study participants are voluntarily participating in the research. Informed consent involves that research participants have the cognitive or mental ability to make informed consent and be sufficiently informed about the consequences of participation before they voluntarily consent. This is important to reduce potential harm to the individual. Measures such as efforts to reduce or eliminate identifying information in the data will be used to maintain the privacy of the research participant. In addition, we asked respondents whether they were in a place where they could talk privately, and we

worded questions on sensitive topics to elicit a yes or no response, rather than a description of the mistreatment event to increase participant privacy and protection.

Summary

Section two provided Research Design and Data Collection. The section started with the Introduction, briefly reviewing the study purpose and major area of Section 2. It followed up with Research Design and Rationale, which covered the study variables and research design. The methodology was another major area in this section. The methodology presented the target population, sampling procedures and original data set's original content, the software to use, statistical test to use, assumptions, and handling assumptions violation. The section also described the validity of the research and ethical procedures.

The following section in this article's organization is Section 3, which has four primary areas: the Introduction, Accessing the Data Set for Secondary Analysis, Results, Summary. More specifically, Section three will briefly review the purpose, research questions, and hypotheses. It will also describe the time frame from which the data set was drawn, present any discrepancies in the use of the data, report descriptive and demographic characteristics of the sample. Finally, Section 3 will provide the descriptive statistics and statistical analysis.

Section 3: Presentation of the Results and Findings

Elder abuse and neglect are pervasive public issues in the United States, affecting one in every 10 Americans older than 60. It profoundly affects the victims, ranging from emotional and physical impact to lasting disabilities, including head injuries, broken bones, constant physical pain, soreness, fear, and anxiety. Elder abuse prevalence is often underestimated and underreported. According to research findings by Storey (2020), nearly 24 additional cases remain undetected for every one incident of abuse reported to authorities. Available data mainly come from nonfatal injuries seen in emergency rooms, excluding individuals who do not require or seek treatment.

Most elderly abuse and neglect go unreported because seniors fear of retaliation, concern about consequences, shame, lack of an effective support network, negative stereotypes, desire to remain in their communities, and mistrust of law enforcement and governmental institutions. It is more likely to go unreported in minority groups such as African Americans, subsequently allowing the abuse to continue and the elder abuse suspect to go unpunished (Mouton & Southerland, 2017). According to Enguidanos et al. (2014), African Americans' reluctance to openly expose and denounce intrafamily elder abuse stems from a strong feeling of filial and community devotion.

The purpose of this cross-sectional quantitative study was to compare reporting and help-seeking behavior in African American and non-African American elderly abuse victims and perpetrators characteristics. Research question 1 (RQ1) was, "Is there a significant difference in reporting and help-seeking behavior between African American and non-African American victims of elderly abuse while controlling for age, education,

gender, income, and marital status covariates? “A prior study showed race and ethnicity increased the risk of elder abuse and mistreatment. However, the majority remain under-detected and reported. Previous studies showed emotional and financial abuse were the most frequently reported. Emotional abuse was the most reported, where 137 or 17.7% reported being emotionally abused. Of those reported emotional abuse cases, 40 (29.2%) were committed by a son or daughter, while 21 (15.3%) were by a spouse or partner. Financial abuse was another prevalent abuse observed in the data set, where 66 or 8.5% of the study participants reported being financially abused. Compared to emotional abuse, only 15 (10.9%) financial abuse cases were reported to the police or other authorities.

Research question 2 (RQ2), was “Is there a significant difference in perpetrator characteristics (family, coworker, neighbor, a friend, another non-relative, socioeconomic status) in African American and non-African American victims?” A previous study found that older African American adults may be at increased risk of exploitation from family caregivers than non-African Americans (Laumann et al., 2008).

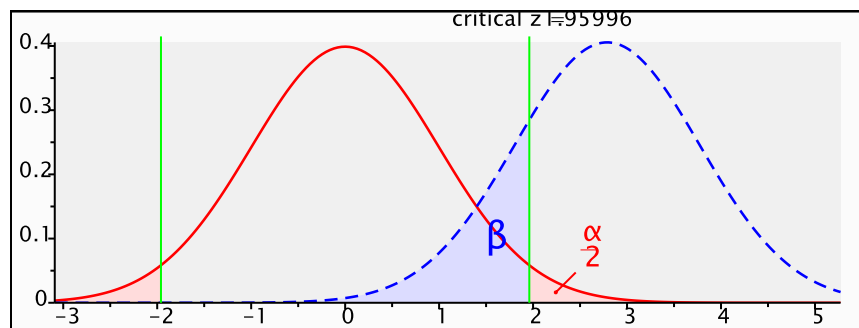
Power Analysis and Sample Size

As Sullivan and Feinn (2012) described, statistical power is the probability of finding a statistically significant difference between interventions when an actual difference does exist. I performed multinomial logistic regression analysis to identify the strength of the relationship between the independent variable and the dependent variable. The appropriate sample size was determined by G*power 3.1.9.7 version. The Z test was selected for the test family in G*Power. Logistic regression was the statistical test used, while “Prior” was the type of power analysis employed. The odd ratio for this study

power analysis is 1.3. I used a large sample z -test, Demidenko (2007) with variance correction. For the input parameters. I selected a two-tail, $\Pr(Y=1|X=1)$ $H_0 = 0.8$, α err prob. = 0.05, Power ($1-\beta$ err prob.) = 0.8. I used higher power because the higher the power, the more likely it is to detect an effect if it is present, and the more samples needed. The output parameters include Critical Z of 1.9599640 and a minimum sample size of 721. The actual power for this analysis was 0.80001115.

Figure 4

*Total Sample Size Determination Using G*power*



Research Questions and Hypotheses

Research Question 1: Is there a significant difference in reporting and help-seeking behavior between African American and non-African American victims of elder abuse while controlling for age, education, gender, income, and marital status covariates?

H_{01} -There is no significant difference in reporting and help-seeking behavior between African American and non-African American victims of elder abuse while controlling for age, education, gender, income, and marital status covariates.

H_{a1}-There is a significant difference in reporting and help-seeking behavior between African American and non-African American victims of elder abuse while controlling for age, education, gender, income, and marital status covariates.

Research Question 2: Is there a significant difference in perpetrator characteristics (family, coworker, neighbor, a friend, another non-relative, socioeconomic status) in African American and non-African American victims?

H₀₂-There is no significant difference in perpetrator characteristics in African American and non-African American victims.

H_{a2}-There is a significant difference in perpetrator characteristics in African American and non-African American victims.

Section 3 presents the essential findings of this research study, which compared the difference in reporting and help-seeking behavior between African American and non-African American victims of elder abuse and perpetrators' characteristics in African and non-African Americans. The section was organized into four major subsections: introduction, accessing the data set for secondary analysis, results, and summary. The subsections provide the time frame from which the data set was drawn, present the sample's descriptive and demographic characteristics, evaluate statistical assumptions, and report statistical analysis findings organized by research questions. It also provides tables and figures to illustrate results and summarize answers to research questions.

Accessing the Data Set for Secondary Analysis

The study used the NEMS (Wave II) survey. The survey was conducted as a 5-year follow-up to a previous elderly mistreatment prevalence mistreatment elderly. The AbtSRBI survey research firm collected the Wave II data with computer-assisted telephone interviews over four years: from January 1, 2015, to December 31, 2018. The survey firm selected the sample using stratified random digit dialing and an area probability sample based on Census-defined size of place characteristics. The continental United States acted as the sampling site. The sample size for the Wave II survey was 774. The sample includes 183 from those who previously participated in the Wave I study and reported psychological, physical, or sexual abuse, while 591 were non-victims from the comparison group. The survey firm randomly selected the subsample 183 from the original Wave I 753 mistreated group and selected 591 from Wave I 2149 nonvictims for comparison purposes. According to the author, the cooperation rate was 66% for the NEMS Wave II since the age 60 mistreated group and 57% for the comparison group for a total follow-up NEMS Wave II sample of 774. The investigator contacted all locatable individuals who participated in Wave I and reported mistreatment or abuse.

Discrepancies in the Data Set

According to Acierno (2018), the data were incomplete due to under-reporting in self-survey. The survey was based entirely on self-report, often under-reported in this age group, particularly in a minority group. As Acierno (2018) described, there was also a lack of cooperation from the study participants. According to the author, the cooperation rate was 66% for the NEMS Wave I since the age 60 mistreated group and 57% for the

comparison group for a total follow-up NEMS Wave II sample. Moreover, the survey was based entirely on self-report, excluding adults with cognitive impairment. Except for these issues with the data collection, no other problem with the data set was found.

Baseline Descriptive and Demographic Characteristics of the Sample

Table 4

Age Descriptive Statistics

	<i>N</i>	Range	Minimum	Maximum	Mean	Std. Deviation	Variance
Age	774	39	60	99	76.95	7.104	50.465
Valid <i>N</i> (listwise)	774						

Table 5

Gender Make-Up of the Sample

		Valid		Missing		Total	
		<i>N</i>	Percent	<i>N</i>	Percent	<i>N</i>	Percent
Age	Male	253	100.0%	0	0.0%	253	100.0%
	Female	521	100.0%	0	0.0%	521	100.0%

Note. *N* = 774.

Of the 774 older adults, in Table 4, the average age was 76.95 years ($SD = 7.1$, Variance = 50.465), ranging from 60 to 99 years. Table 5 shows the gender composition of the NEMS Wave II survey participants, which shows the majority of the study participants were women, 67.3% (521), and 32.7% (253) were men.

Table 6*Descriptive Table of age by Gender*

Gender		Statistic	Std. Error
Male	Mean	76.40	.428
	95% Confidence Interval for Mean	Lower Bound	75.56
		Upper Bound	77.24
	5% Trimmed Mean	76.17	
	Median	75.00	
	Variance	46.368	
	Std. Deviation	6.809	
	Minimum	60	
	Maximum	95	
	Range	35	
	Interquartile Range	11	
	Skewness	.410	.153
	Kurtosis	-.715	.305
	Female	Mean	77.22	.317
95% Confidence Interval for Mean		Lower Bound	76.60
		Upper Bound	77.85
5% Trimmed Mean		76.87	
Median		76.00	
Variance		52.324	
Std. Deviation		7.234	
Minimum		62	
Maximum		99	
Range		37	
Interquartile Range		11	
Skewness		.618	.107
Kurtosis		-.346	.214

Note. $N = 774$.

Table 6 provides a complete descriptive analysis of the survey participants' age by gender. The table showed that the average age for males was 76.4, and the standard deviation of 0.428. The minimum and maximum ages were 60 and 95 for males, respectively. The average age for females was 77.22, significantly higher than for males. The standard deviation was 0.317. Similarly, the minimum and maximum age for females were 62 and 99, respectively.

Table 7*Age Distribution by Racial Group*

Racial categories		Statistic	Std. Error
American Indian or Alaskan Native	Mean	74.92	2.261
	95% Confidence interval of the mean		
	Lower Bound	69.94	
	Upper Bound	79.89	
	5% Trimmed Mean	74.35	
	Median	72.00	
	Variance	61.356	
	Std. Deviation	7.833	
	Minimum	67	
	Maximum	93	
	Range	26	
	Interquartile Range	13	
	Skewness	1.194	.637
	Kurtosis	1.132	1.232
Asian	Mean	78.00	5.000
	95% Confidence interval of the mean		
	Lower Bound	14.47	
	Upper Bound	141.53	
	5% Trimmed Mean	.	
	Median	78.00	
	Variance	50.000	
	Std. Deviation	7.071	
	Minimum	73	
	Maximum	83	
	Range	10	
	Interquartile Range	.	
	Skewness	.	.
	Kurtosis	.	.
Black or African American	Mean	75.44	1.091
	95% Confidence interval of the mean		
	Lower Bound	73.23	
	Upper Bound	77.64	
	5% Trimmed Mean	75.01	
	Median	73.00	
	Variance	46.410	
	Std. Deviation	6.813	
	Minimum	67	
	Maximum	93	
	Range	26	
	Interquartile Range	8	
	Skewness	.865	.378
	Kurtosis	.037	.741
White	Mean	76.94	.264
	95% Confidence interval of the mean		
	Lower Bound	76.42	
	Upper Bound	77.45	
	5% Trimmed Mean	76.65	
	Median	76.00	
	Variance	48.825	
	Std. Deviation	6.987	
	Minimum	60	

Racial categories		Statistic	Std. Error	
(VOL) Hispanic / Latino	Maximum	99		
	Range	39		
	Interquartile Range	11		
	Skewness	.505	.092	
	Kurtosis	-.548	.184	
	Mean	79.83	4.354	
	95% Confidence interval of the mean	Lower Bound	68.64	
		Upper Bound	91.03	
	5% Trimmed Mean	79.20		
	Median	76.00		
	Variance	113.767		
	Std. Deviation	10.666		
	Minimum	72		
	Maximum	99		
(VOL) Other (Specify)	Range	27		
	Interquartile Range	16		
	Skewness	1.402	.845	
	Kurtosis	1.676	1.741	
	Mean	83.00	4.231	
	95% Confidence interval of the mean	Lower Bound	71.25	
		Upper Bound	94.75	
	5% Trimmed Mean	83.28		
	Median	84.00		
	Variance	89.500		
	Std. Deviation	9.460		
	Minimum	69		
	Maximum	92		
	Range	23		
(VOL) Don't know	Interquartile Range	18		
	Skewness	-.771	.913	
	Kurtosis	-.302	2.000	
	Mean	88.00	8.000	
	95% Confidence interval of the mean	Lower Bound	-13.65	
		Upper Bound	189.65	
	5% Trimmed Mean	.		
	Median	88.00		
	Variance	128.000		
	Std. Deviation	11.314		
	Minimum	80		
	Maximum	96		
	Range	16		
	Interquartile Range	.		
Skewness	.	.		
Kurtosis	.	.		
(VOL) Refused	Mean	81.17	4.143	
	95% Confidence interval of the mean	Lower Bound	70.52	
		Upper Bound	91.82	
	5% Trimmed Mean	80.74		
	Median	79.00		
	Variance	102.967		
	Std. Deviation	10.147		

Racial categories	Statistic	Std. Error
Minimum	71	
Maximum	99	
Range	28	
Interquartile Range	15	
Skewness	1.198	.845
Kurtosis	1.369	1.741

Note. $N = 774$.

Table 8

Descriptive Statistics: Marital Status

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Married	341	44.1	44.1	44.1
	Living as couple	4	.5	.5	44.6
	Separated	2	.3	.3	44.8
	Divorced	116	15.0	15.0	59.8
	Widowed	267	34.5	34.5	94.3
	Single, or never married	43	5.6	5.6	99.9
	(VOL) Refused	1	.1	.1	100.0
	Total	774	100.0	100.0	

The ages of the survey participants were also analyzed by racial groups and are given in Table 7 above. The mean or average age of American Indian or Alaskan Native was 74.92 ($SD = 2.261$); Asian 78 ($SD = 5.0$); Black or African American 75.44 ($SD = 1.091$); White 76.94 ($SD = 76.94$); Hispanic/Latino 79.83 ($SD = 4.354$) in the sample.

In terms of sex, male=0 (32.7%); female = 1 [67.3%]; race (American Indian or Alaskan Native=1 [1.6%]; Asian=2 [0.3%], Black of African American=3 [5.0%], Native Hawaiian or Other Pacific Islander=4 [0.0%], White=5 [90.7%], Latino=6 [0.8%], Other=7 [0.6%]; Don't know=8 [0.3%], Refused=9 [0.8%]).

Table 9*Frequency Table: Highest Education Level Completed*

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Some high school (no diploma)	57	7.4	7.4	7.4
	High school graduate	214	27.6	27.6	35.0
	Some college (no degree)	180	23.3	23.3	58.3
	Associate Degree (AA)	36	4.7	4.7	62.9
	Bachelor's Degree (BA, AB, BS, etc.)	124	16.0	16.0	78.9
	Some graduate or professional school (no degree)	28	3.6	3.6	82.6
	Graduate or professional school degree (MA, MS, PHD, etc.)	132	17.1	17.1	99.6
	(VOL) Don't know	2	.3	.3	99.9
	(VOL) Refused	1	.1	.1	100.0
	Total	774	100.0	100.0	

Educational level (Table 9) was coded as High School (no diploma) =1 [7.4%]; High school graduate=2 [27.6%]; Some college (no degree) =3 [23.3%]; Associate Degree (AA)=4 [4.7%]; Bachelor's Degree=5 [16.0%]; Some graduate or professional school (no degree) =6 [3.6%]; Graduate or professional school degree (MA, MS, PHD, etc.) =7 [17.1%]; Don't know =8 [0.3%]; Refused =9 [0.1%]), and marital status, table 8 above, (1 = married [44.1%]; 2 = living as couple [0.5%]; 3 = separated [0.3%]; 4 = divorced [15%]; 5 = widowed [34.5%]; 6 = single or never married [5.6%]; 8 = don't know [0.0%]; 9 = refused [0.1%]) were all coded as dichotomous variables.

Household income was another variable in the data and it was coded as (1= \$40,000 or Less [48.7%]; 2= Between \$40,000 and \$80,000 [27.8%]; 3= more than \$80,000 [15.6%]; 4= don't know [2.8%]; 5= refused [3.5%]; 6= missing [1.6%]). Finally, reporting and help-seeking (the dependent variable) was coded as (1=Yes [20.4%]; 2=No [77.4%]; 3=Don't know [0.9%]; 4=Refused [1.3%]). Of the 66 that indicated financial abuse, 25 (37.9%) reported the incidents to the police or other authorities, while 36

(54.5%) did not report, two (3%) didn't know, and three ((4.5%) refused to answer. Only 15 (10.9%) of the emotional victim incidents were reported to the police or other authorities, while six or 28.6% of the physical abuse incidents were reported to the police or other authorities.

External validity

The survey was based entirely on self-report, often under-reported, particularly in a minority group. As Acierno (2018) described, there was also a lack of cooperation from the study participants. According to the author, the cooperation rate was 66% for the NEMS Wave I since the age 60 mistreated group and 57% for the comparison group for a total follow-up NEMS Wave II sample. Moreover, the sample excluded adults with cognitive impairment, potentially leaving those more likely victims of elderly abuse victims.

Univariate Analysis

As shown in Tables 4, 5, 6, and 7, the sample has a mean age of 76.95, median of 76.00, and mode of 72.00, while the minimum age was 60.00 and the maximum was 99.00. The sample standard deviation was 7.10. Out of 774, 253, or 32.7%, were male, while 521, or 67.3%, were female. The racial composition of the sample was 12 American Indian or Alaskan Native, two Asian, 39 Black or African American, 702 White, six Latino, five Other, and two Don't know, while six of the study participants refused to answer and three don't know or refused to answer. The majority of participants were high school graduates (214). At the same time, 57 were high school (but had no diplomas), 180 some college (no degree), 36 had associate degrees, 124 had bachelor's

degrees, 28 some graduate or professional school (no degree), and 132 were graduate or professional school degree (MA, MS, Ph.D., etc.). The majority of the study participants were married (341), while the rest report as follows: four were living alone, two were separated, 116 were divorced, 267 were widowed, 43 were single or never married, and one refused to answer. The household income showed 377 participants had income less than or equal to \$40,000, 215 had income between \$40,000 to \$80,000, 121 had income more than \$80,000, and 22 study participants didn't know.

Results

Descriptive Analysis

Table 10

Analysis of the Sample Size

		Marital status	Hispanic or Latino origin	Racial categories	Highest level of schooling Completed	Total household income
<i>N</i>	Valid	774	774	774	774	762
	Missing	0	0	0	0	12

Note. *N* = 774.

The SPSS descriptive analysis shows a valid sample size (*n*) of 774, (Table 8), while the total number of observation *N* was 774 (missing values and valid values). The variable age shows that the population was mostly between 65 and 80 years (59.9%) while gender output showed fairly equal distribution (male 32.7% and female 67.3%), Table 5. The mean age of the study participants, Table 4, was 76.95 (minimum age 60, maximum age being 99) and a standard deviation (SD) of 7.10. The mean family or household size of the participants, table 9, was 1.98 people, which was lower than the national average of 2.6 people.

Table 11*Abuse and Mistreatment Frequency Table*

		Financial Abuse Report	Emotional Abuse Report	Physical Abuse Report	Sexual Abuse Report	Racial categories ¹
<i>N</i>	Valid	66	137	21	2	774
	Missing	708	637	753	772	0

Table 11 provided the frequency of the dependent and predictor variables.

Emotional abuse (which includes verbally attacking, scolding, yelling at, humiliating, or coercing the victim into doing something against his or her will) was the most reported abuse and mistreatment, where 137 or 17.7% reported being emotionally abused. Of those reported emotional abuses, 40 (29.2%) were committed by a son or daughter, while 21 (15.3%) were by spouse or partner. Compared to financial abuse (where 37.9% were reported), only 15 (10.9%) were reported to the police or other authorities. The main reasons for not reporting were: the victim did not know there was a crime or the harm was intended (62), did not want the family matter to become public (48), did not the person doing to get in trouble (43), do not want the family or others to know (30), not to look like foolish (23), afraid of reprisal (19), do not know how to report (18).

Financial abuse was another most prevalent abuse observed in the data set, where 66 or 8.5% of the study participants reported being financially abused. These include selling the victim's property, denying copies of financial decision paperwork, forged signature to sell the property, getting money from a bank, tricking the member into signing a document to get money or possessions, stolen money or things. Of the study

participants, 30 or 3.9% of perpetrators were friends, and seven (0.9%) were committed by the victim's sons or daughters.

The main financial abuse perpetrators were a friend (31 out of 66 or 47%), while son/daughter accounted for seven cases (10.6%), brother or sister, six cases (9.1%). Of the 66 that indicated financial abuse, 25 (37.9%) reported the incident to the police or other authorities, while 36 (54.5%) did not report, two (3%) didn't know, and three ((4.5%) refused to answer. The main reason for not reporting includes: the victims did not know a crime was committed (12), wanted the person to get in trouble (11), did not want family matters to become public (10), did not know how to report (8), do not want the family or others to know (8), afraid being looked foolish (7), afraid of reprisal (5), refuse to answer or don't know (5).

Only 21, or 2.7%, reported being physically abused compared to other abuse types. The main perpetrators of abuse were spouses or partners (7 or 33.3%). Out of the total victims, six or 28.6% reported the incident to the police or other authorities. The main reasons for not reporting were: the victim did not know there was a crime or the harm was intended (1), did not want the family matter to become public (11), did not the person doing to get in trouble (10), do not want the family or others to know (7), not to look like foolish (4), afraid of reprisal (8), do not know how to report (5). Lastly, only two reported sexual abuse in the survey, and both victims did not report it to the police or other authorities. The main reasons for not reporting include the victim not wanting family or others to know, being afraid of being punished, and wanting matters to become public. The perpetrators were a partner or a spouse.

In summary, analysis of the data shows emotional or psychological abuse was more prevalent (17.7%), followed by financial, physical, and sexual abuse (8.5%, 2.7%, & 0.26%, respectively). The analysis also shows financial abuse is more likely to be reported to police or other authorities (37.9%) than other abuse incidents. Only 28.6% of physical abuse and 10.9% of emotional abuse incidents were reported. The characteristics of perpetrators differ by abuse type. In financial abuse, the main perpetrators were a friend (47%), while spouse or partner (33.3%) and son or daughter (29.2%) accounted for in physical and emotional abuse incidents, respectively. All sexual abuse incidents were a partner or a spouse.

Statistical Assumptions

Data was obtained from ICPSR for 774 sample, collected between 2015 and 2018. The outcome variable of interest was reporting of abuse and mistreatment. Multinomial logistic regression was employed to investigate the relationship between race/ethnicity and reporting of abuse and mistreatment. Prior to conducting the multinomial logistic regression analysis, the data was checked for assumptions including variable type, linearity, number of independent variables, mutual exclusions of the variables, multicollinearity, and for outliers. The dependent variables (reporting financial, emotional, physical and sexual abuse) were a categorical variable with four categories (Yes, No, Don't know, Refused), non-ordinal variables. As a result, multinomial logistic regression was the best fit to predict the dependent variable. The dependent variable, reporting, were mutual exclusive and exhaustive categories. The independent variable of interest was racial categories with eight categories. However, the variable racial category

was recoded to dummy variable (1-African American, 0-non-African American) for accurate presentation and analysis. The other independent variables in the data were family size (D1, scale variable), marital status (D4, categorical variable), age (D5, scale variable), education level (D8, categorical variable), and income level (D10, categorical variable).

I assessed multicollinearity using SPSS generated correlation coefficients and variance inflation factor (VIF) values. Correlation Coefficients of 0.80 or higher shows strongly correlated (multicollinear), which is an issue. The highest Correlation Coefficient observed between different variables was 0.286 showing that the independent variables were not highly correlated to each other. I also tested multicollinearity using the VIF, where values of 5 or larger were considered an issue and violated the assumption. Both tests confirm the absence of multicollinearity and the independent variables were not highly correlated to each other. I also assessed for “linearity in the logit for any continuous independent variables” by creating a statistical term representing the relations between each continuous independent variable and its natural logarithm and found no violation. The variables were checked for Box-Tidwell test which is used to check for linearity between the predictors and the logit transformation of the predictor. I assessed the presence or lack of strongly influential outliers by looking at the difference between predicted and actual outcomes or residuals and found no strong outliers.

Multinomial Logistic Regression

To address the research question, I performed multinomial logistic regression analysis to identify the strength of the relationship between the independent variable

(racial background) and dependent variable (reporting and help-seeking behavior). A p-value of < 0.05 was considered significant. In the SPSS, the independent variables were separated into covariates and factors. In multinomial logistic regression, continuous independent variables are covariates while nominal independent variables are factors. Ordinal variables can be treated either as factors or covariates. In the study, education level (D8, an ordinal categorical variable) and income level (D10, ordinal categorical variable) were treated as a covariate while covariates were family size (D1, scale variable), and age (D5, scale variable). Marital status (D4, categorical variable), and racial background (D7, categorical variable) were factors. However, the other predictor variables were excluded to avoid singularities in the Hessian matrix.

The default behavior in SPSS Statistics is for the last category (numerically) to be selected as the reference category. This study selected the category with the highest frequency (no) as the reference category. Financial, emotional, physical and sexual mistreatment were the four major types of elder mistreatment observed in the data. However, only emotional and financial mistreatment have significant observation. As a result, the analysis focused on emotional and financial mistreatment reporting.

The independent variable, racial categories, was recoded to binary (dummy) variables where 1=African American and 0=all other racial groups.

Table 12

Frequency Table: Racial Compositions

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	All others	735	95.0	95.0	95.0
	African American	39	5.0	5.0	100.0
	Total	774	100.0	100.0	

Table 12 above shows the African Americans and non-African Americans racial makeup of the data. The sample was 39 (5.04%) African Americans while non-African Americans was 735 (94.96%).

Table 13

Financial Abuse Report Case Processing Summary

		<i>N</i>	Marginal Percentage
Financial Abuse Report	1.00	25	37.9%
	2.00	36	54.5%
	3.00	2	3.0%
	4.00	3	4.5%
Racial Categories	All others	63	95.5%
	African American	3	4.5%
Highest Education Level	Some high school (no diploma)	6	9.1%
	High school graduate	14	21.2%
	Some college (no degree)	11	16.7%
	Associate Degree (AA)	5	7.6%
	Bachelor's Degree (BA, AB, BS, etc.)	11	16.7%
	Some graduate or professional school (no degree)	4	6.1%
	Graduate or professional school degree (MA, MS, PHD, etc.)	15	22.7%
Valid		66	100.0%
Missing		708	
Total		774	
Subpopulation		60 ^a	

Note. The dependent variable has only one value observed in 58 (96.7%) subpopulations.

Table 14*Emotional Abuse Report Case Processing Summary*

		<i>N</i>	Marginal Percentage
Emotional Abuse Report	1.00	15	10.9%
	2.00	122	89.1%
Racial Categories	All others	131	95.6%
	African American	6	4.4%
Highest Education Level	Some high school (no diploma)	11	8.0%
	High school graduate	33	24.1%
	Some college (no degree)	28	20.4%
	Associate Degree (AA)	7	5.1%
	Bachelor's Degree (BA, AB, BS, etc.)	22	16.1%
	Some graduate or professional school (no degree)	9	6.6%
	Graduate or professional school degree (MA, MS, PHD, etc.)	27	19.7%
	Valid	137	100.0%
Missing	637		
Total	774		
Subpopulation	115 ^a		

Note. The dependent variable has only one value observed in 112 (97.4%) subpopulations.

Table 13 and 14 are the case processing summary table for financial and emotional mistreatment reporting. The marginal percentage in two tables lists the proportion of valid observations found in each of the outcome variable's groups and is calculated by dividing the N for each group by the N for the "valid". Table 13 shows 66 valid values, indicating the number of observations in the dataset where the outcome variable and all predictor variables are non-missing; 708 values in the Case Processing Summary table, indicate the number of observations in the dataset where data are missing from the outcome variable or any of the predictor variables. Table 14 shows 137 emotional abuse observed in the dataset. Total value in the table shows the total number of observations in the dataset (the sum of the number of observations in which data are missing and the number of observations with valid data). Finally, subpopulation is the other piece of information provided by the Table 13. It shows a total of 60 and 774 subpopulations in the data in table 13 and 115 in table 14.

Research Question 1

The first research question was to examine if there is a significant difference in reporting and help-seeking behavior between African Americans and non-African Americans victims of elderly abuse while controlling for age, education, gender, income, and marital status covariates. A multinomial logistic regression was performed to model the relationship between the predictor (race) and help-seeking behavior in the form of reporting. The traditional .05 criterion of statistical significance was employed for the test.

Table 15

Case Processing Summary Table: Financial Abuse

		<i>N</i>	Marginal Percentage
Financial Abuse	1.00	25	3.2%
	2.00	36	4.7%
	3.00	713	92.1%
Household income	1.00	592	76.5%
	2.00	182	23.5%
Racial Categories	All others	735	95.0%
	African American	39	5.0%
Marital status	1.00	341	44.1%
	2.00	433	55.9%
Education Level	1.00	271	35.0%
	2.00	503	65.0%
Valid		774	100.0%
Missing		0	
Total		774	
Subpopulation		306 ^a	

Note. The dependent variable has only one value observed in 265 (86.6%) subpopulations.

Table 15 is the case processing table. The number under N column provides the number of observations fitting the description in the first column. The marginal percentage in Table 16 lists the proportion of valid observations found in each of the outcome variable's groups and is calculated by dividing the N for each group by the N for the "valid". The table shows 774 Valid values, indicating the number of observations in the dataset where the outcome variable and all predictor variables are non-missing; no

value in the Case Processing Summary table, indicating the number of observations in the dataset where data are missing from the outcome variable or any of the predictor variables. Total value in the table shows the total number of observations in the dataset (the sum of the number of observations in which data are missing and the number of observations with valid data). Finally, subpopulation is the other piece of information provided by the case processing table (Table 16). It shows a total of 306 subpopulations in the data.

Table 16

Model Fitting Table

Model	Model Fitting Criteria		Likelihood Ratio Tests	
	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	359.797			
Final	344.008	15.789	12	.201

Table 16 is the Model Fitting Table. The P-value of .201 shows the model do not fit the data well than no model.

Table 17

Pseudo R-Square Table

<i>Pseudo R-Square</i>	
Cox and Snell	.020
Nagelkerke	.042
McFadden	.031

Table 17 is the Pseudo R-square which is a measure of model fitting to the data over the null model. Mcfadden value between 0.2 to 0.4 indicates model fits that data

over the null model. As a result, the Mcfadden value of .031 shows the model not fitting the data. Similarly, the lower value of Cox and Snell and Nagelkerke show independent variable is not explaining much in the variation of your dependent variable.

Table 18

Table: Likelihood Ratio Tests

Effect	Model Fitting Criteria		Likelihood Ratio Tests	
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	344.008 ^a	.000	0	.
Household Size	344.247	.239	2	.887
Age	347.811	3.803	2	.149
House Hold income	346.747	2.739	2	.254
Racial Categories	345.283	1.275	2	.529
Marital status	349.629	5.621	2	.060
Education Level	348.598	4.590	2	.101

Note. The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.
a. This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

Table 18 is the Likelihood Ratio tests which mostly useful for nominal independent variables because it is the only table that considers the overall effect of a nominal variable. The likelihood Ratio Tests (Table 18) above shows which of the independent variables are statistically significant. The independent variable of the variable of interest (racial categories) was not statistically significant because $P = .529$ (the "Sig." column).

Table 19*Parameter Estimate Table: Financial abuse*

Financial Abuse ^a		B	Std. Error	Wald	df	Sig.	Exp(B)	95% CI for Exp(B)	
								Lower Bound	Upper Bound
1.00	Intercept	-5.207	3.278	2.524	1	.112			
	Household Size	-.013	.153	.007	1	.933	.987	.732	1.332
	Age	.069	.039	3.122	1	.077	1.071	.993	1.156
	[House Hold income=1.00]	1.136	.763	2.218	1	.136	3.115	.698	13.899
	[House Hold income=2.00]	0 ^b	.	.	0	.	.	.	.
	[Racial Categories=0]	-1.310	1.269	1.065	1	.302	.270	.022	3.246
	[Racial Categories=1]	0 ^b	.	.	0	.	.	.	.
	[Marital status=1.00]	.820	.609	1.815	1	.178	2.271	.689	7.492
	[Marital status=2.00]	0 ^b	.	.	0	.	.	.	.
	[Education Level=1.00]	-1.217	.626	3.786	1	.052	.296	.087	1.009
	[Education Level=2.00]	0 ^b	.	.	0	.	.	.	.
3.00	Intercept	-.171	2.305	.005	1	.941			
	Household Size	.018	.080	.049	1	.824	1.018	.871	1.189
	Age	.046	.027	2.899	1	.089	1.048	.993	1.105
	[House Hold income=1.00]	.234	.435	.288	1	.591	1.263	.538	2.964
	[House Hold income=2.00]	0 ^b	.	.	0	.	.	.	.
	[Racial Categories=0]	-.884	1.033	.732	1	.392	.413	.054	3.130
	[Racial Categories=1]	0 ^b	.	.	0	.	.	.	.
	[Marital status=1.00]	.963	.408	5.573	1	.018	2.619	1.178	5.825
	[Marital status=2.00]	0 ^b	.	.	0	.	.	.	.
	[Education Level=1.00]	-.265	.374	.502	1	.479	.767	.369	1.597
	[Education Level=2.00]	0 ^b	.	.	0	.	.	.	.

Note. a. The reference category is: 2.00.

b. This parameter is set to zero because it is redundant.

Hypothesis Testing

The Wald test statistics for the predictor racial group was 1.065 (Table 19) with an associated P-value of 0.032, while the alpha level was set to 0.05. There is no significant association between the predictor variable of race and dependent variable of help-seeking in the form of reporting emotional abuse (Wald = 1.065, P = 0.032), as displayed in Table 19, thus the null hypothesis for RQ1 is accepted. Based on the results of the multinomial logistic regression test, the null hypothesis is accepted, denoting, there is no significant difference in reporting and help-seeking behavior between African

American and non-African American victims of elderly abuse while controlling for age, education, gender, income, and marital status covariates.

The reference group was those participants who answered “no” (coded-2 in SPSS) to the survey question. Addition of the predictor to a model that contained only the intercept did not significantly improve the fit between model and data, $\chi^2(12, N=66) = 15.789$, Nagelkerke $R^2 = .042$, $P > .05$. As shown in Table 17, no significant unique contributions were made by race. Goodness of fit was explored for each pair of groups and no significant test found. No significant difference observed between African Americans (coded-1) and non-African Americans (coded-0). More specifically, as shown in table 19 above under the odd ratio, the odds of non-African Americans reporting (yes) financial abuse as opposed to not reporting was 0.270 times that of non-African Americans. This shows African Americans less likely report financial abuse compared to non-African Americans.

Table 20

Case Processing Table: Emotional Abuse Analysis

		<i>N</i>	Marginal Percentage
Emotional Abuse Report	1.00	15	10.9%
	2.00	122	89.1%
House Hold income	1.00	110	80.3%
	2.00	27	19.7%
Racial Categories	All others	131	95.6%
	African American	6	4.4%
Marital status	1.00	53	38.7%
	2.00	84	61.3%
Education Level	1.00	44	32.1%
	2.00	93	67.9%
Valid		137	100.0%
Missing		637	
Total		774	
Subpopulation		97 ^a	

Note. The dependent variable has only one value observed in 87 (89.7%) subpopulations.

Table 20 is the case processing table in emotional abuse multinomial logistic analysis. The table shows 137 Valid values, indicating the number of observations in the dataset where the outcome variable and all predictor variables are non-missing; 637 values in the Case Processing Summary table, indicating the number of observations in the dataset where data are missing from the outcome variable or any of the predictor variables.

Table 21

Model Fitting Information Table: Emotional Abuse

Model	Model Fitting Criteria			Likelihood Ratio Tests
	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	75.640			
Final	70.828	4.812	6	.568

Table 21 is the Model Fitting Table. The significance value of .568 shows the model do not fit the data well than no model.

Table 22

Goodness-of-Fitting Table

	Chi-Square	df	Sig.
Pearson	70.508	90	.936
Deviance	55.867	90	.998

Goodness of fit was explored by conducting Hosmer-Lemeshow tests for each pair of groups. The chi-square value of (70.508) indicate a poor fit for the model. Large chi-square values indicate a poor fit for the model while small value indicates good fit for the model. On the other hand, the P-value of (.936) in the Goodness-of-fit table indicates the model fit the data well. A statistically significant result (i.e., $p < .05$) indicates that the

model does not fit the data well while a statistically non-significant result (i.e., $p > .05$) indicates that the model fit the data well.

Table 23

Pseudo R-Square

Measure	Coefficient
Cox and Snell	.035
Nagelkerke	.069
McFadden	.051

Table 23 is the Pseudo R-square which is a measure of model fitting to the data over the null model. As a rule of thumb, Mcfadden value between 0.2 to 0.4 indicates model fits that data over the null model. As a result, the Mcfadden value of .051 shows the model not fitting the data. Similarly, the lower value of Cox and Snell show independent variable is not explaining much in the variation of the dependent variable.

Table 24

Likelihood Ratio Test

Effect	Model Fitting Criteria		Likelihood Ratio Tests	
	-2 Log Likelihood of		<i>df</i>	Sig.
	Reduced Model	Chi-Square		
Intercept	70.828 ^a	.000	0	.
Household Size	71.314	.486	1	.486
Age	73.104	2.276	1	.131
House Hold income	71.013	.185	1	.668
Racial Categories	72.240	1.412	1	.235
Marital status	71.130	.302	1	.583
Education Level	71.891	1.063	1	.303

Note. The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

a. This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

Table 25 is the Likelihood Ratio tests which mostly useful for nominal independent variables because it is the only table that considers the overall effect of a

nominal variable. The likelihood Ratio Tests (Table 25) above shows which of the independent variables are statistically significant. The independent variable of the interest variable (racial categories) was not statistically significant because $P = .235$ (the "Sig." column).

Table 25

Parameter Estimate Table: Emotional Abuse

Emotional Abuse Report ^a	B	Std. Error	Wald	df	Sig.	Exp(B)	95% CI for Exp(B)	
							Lower Bound	Upper Bound
1.00 Intercept	-12.869	4.081	9.946	1	.002			
Household Size	-.277	.426	.423	1	.515	.758	.329	1.747
Age	-.075	.053	1.994	1	.158	.927	.835	1.030
[House Hold income=1.00]	.348	.832	.174	1	.676	1.416	.277	7.237
[House Hold income=2.00]	0 ^b	.	.	0	.	.	.	.
[Racial Categories=0]	16.208	.000	.	1	.	10937660.393	10937660.393	10937660.393
[Racial Categories=1]	0 ^b	.	.	0	.	.	.	.
[Marital status=1.00]	.390	.715	.298	1	.585	1.478	.364	6.004
[Marital status=2.00]	0 ^b	.	.	0	.	.	.	.
[Education Level=1.00]	.636	.610	1.087	1	.297	1.888	.572	6.236
[Education Level=2.00]	0 ^b	.	.	0	.	.	.	.

Note. a. The reference category is: 2.00.

b. This parameter is set to zero because it is redundant.

Similar analysis was conducted for emotional abuse. Addition of the predictor to a model that contained only the intercept did not significantly improve the fit between model and data, $\chi^2(9, N=137) = 4.812$, Nagelkerke $R^2 = .069$, $P > .05$. As shown in Table 26, no significant unique contributions were made by race. Goodness of fit was explored for each pair of groups and no significant test found. The reference group was those participants who answered "no" to the survey question. No significant difference observed between African Americans (coded-1) and non-African Americans (coded-0).

Prior literature comparing help-seeking behavior in African American and non-African American is limited. However, according to a study by Burn et al. (2019), help-seeking through reporting to police or other authorities occurred among only 15.4% of EA victims. According to the same study, help-seeking varies among the different abuse type where it was higher among victims of physical abuse, or those with a perpetrator having prior police trouble. It was lower among victims when perpetrators were caregiver, close family members and in cases where the perpetrator had a large friendship network.

However, early research by Moon and Williams (1993) found that African Americans were more likely to utilize formal help-seeking option to resolve abuse and less likely to turn to family members and other relatives for assistance. Another research by Enguidanos et al. (2014) shows a strong sense of familial and community loyalty underlies African Americans' reluctance to publicly disclose and report elder abuse in a family and leading to a tendency to under-report harms and explains the unwillingness to acknowledge offenses reported by others. Negative experience with the criminal justice system, discriminatory law enforcement practices, distrust of the government have led African Americans to unwillingness to report mistreatment to authorities (Joseph & Gonzalez, 2018).

Research Question 2

The second research question was if there is a significant difference in perpetrator characteristics (family, coworker, neighbor, a friend, another non-relative, socioeconomic status) in African Americans and non-African Americans. To answer this research

question, two prevalent cases (emotional and financial) abuse cases were analyzed using a category with the highest frequency as reference category.

A multinomial logistic regression analysis was used to investigate the difference in help-seeking behavior between African Americans (coded 1) and non-African Americans (coded 0). The reference category was a “friend” in both, emotional and financial abuse, multinomial logistic regression analysis. The independent variable (race) was recoded to a binary variable where African Americans-1 and all other racial group was coded 0.

Table 26

Case Processing Summary Table: Emotional Abuse

		<i>N</i>	Marginal Percentage
Person's relationship to the victim	A stranger	4	2.9%
	A spouse or partner	20	14.6%
	An ex spouse or partner	5	3.6%
	A parent or step-parent	3	2.2%
	A brother or sister	15	10.9%
	A son or daughter	38	27.7%
	Another relative	12	8.8%
	A coworker	8	5.8%
	A neighbor	5	3.6%
	A friend	13	9.5%
	Some other non-relative	13	9.5%
	(VOL) Don't know	1	0.7%
	Racial Categories	All others	131	95.6%
African American		6	4.4%
Valid		137	100.0%
Missing		637	
Total		774	
Subpopulation		2	

Table 27

Case Processing Summary Table: Financial Abuse

		<i>N</i>	Marginal Percentage
Person's relationship to the victim	A stranger	2	3.0%
	A parent or step-parent	4	6.1%
	A brother or sister	6	9.1%

	A son or daughter	7	10.6%
	Another relative	1	1.5%
	A coworker	2	3.0%
	A neighbor	2	3.0%
	A friend	30	45.5%
	(VOL) Don't know	6	9.1%
	(VOL) Refused	6	9.1%
Racial Categories	All others	63	95.5%
	African American	3	4.5%
Valid		66	100.0%
Missing		708	
Total		774	
Subpopulation		2	

Table 26 shows 66 valid values, the number of study participants experienced financial mistreatment. Table 27 shows 137 emotional abuse observed in the dataset. Total value in the table shows the total number of observations in the dataset (the sum of the number of observations in which data are missing and the number of observations with valid data).

Table 28

Model Fitting Information for Emotional Abuse

Model	Model Fitting		df	Likelihood Ratio Tests
	-2 Log Likelihood	Chi-Square			Sig.
Intercept Only	534.388			
Final	436.521	97.866	66	.007

The model fitting information (Table 28) shows the significance value of 0.007. The model fits the data well than no model.

Table 29

Likelihood Ratio Test for Emotional Abuse

Model Fitting				
Effect	Criteria		Likelihood Ratio Tests	
	-2 Log Likelihood of Reduced Model	Chi-Square	<i>df</i>	Sig.
Intercept	436.521 ^a	.000	0	.
Household Size	447.436	10.914	11	.450
Age	454.512	17.990	11	.082
House Hold income	453.114	16.593	11	.121
Racial Categories	446.956	10.434	11	.492
Marital status	454.898	18.377	11	.073
Education Level	456.582	20.060	11	.045

Note. The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

a. This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

The likelihood ratio test (Table 29) contains the overall contribution of each independent variable to the model. It shows which of the independent variables are statistically significant. The variable of interest, racial categories, was not statistically significant [$P = .492$ (the "Sig." column)].

Table 30*Parameter Estimate Table: Emotional Abuse Perpetrators*

Person's relationship to the victim ^a		B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
								Lower Bound	Upper Bound
A stranger	Intercept	-3.820	5243.97	.000	1	.999			
	[Racial Cat=0]	-.506	5243.97	.000	1	1.000	.603	.000	. ^c
	[Racial Cat=1]	0 ^b	.	.	0	.	.	.	.
A spouse or partner	Intercept	8.181	1555.62	.000	1	.996			
	[Racial Cat=0]	-16.080	1555.622	.000	1	.992	1.039E-7	.000	. ^c
	[Racial Cat=1]	0 ^b	.	.	0	.	.	.	.
An ex-spouse or partner	Intercept	2.471	1890.13	.000	1	.999			
	[Racial Cat=0]	-17.904	1555.622	.000	1	.991	1.676E-8	.000	. ^c
	[Racial Cat=1]	0 ^b	.	.	0	.	.	.	.
A parent or step-parent	Intercept	-11.315	5681.05	.000	1	.998			
	[Racial Cat=0]	-.537	5235.30	.000	1	1.000	.585	.000	. ^c
	[Racial Cat=1]	0 ^b	.	.	0	.	.	.	.
A brother or sister	Intercept	28.104	1555.63	.000	1	.986			
	[Racial Cat=0]	-16.023	1555.62	.000	1	.992	1.100E-7	.000	. ^c
	[Racial Cat=1]	0 ^b	.	.	0	.	.	.	.
Another relative	Intercept	24.699	1555.63	.000	1	.987			
	[Racial Cat=0]	-16.278	1555.62	.000	1	.992	8.518E-8	.000	. ^c
	[Racial Cat=1]	0 ^b	.	.	0	.	.	.	.
A coworker	Intercept	-.871	5.914	.022	1	.883			
	[Racial Cat=0]	-.418	.000	.	1	.	.659	.659	.659
	[Racial Cat=1]	0 ^b	.	.	0	.	.	.	.
A neighbor	Intercept	9.344	4174.89	.000	1	.998			
	[Racial Cat=0]	-.132	4174.88	.000	1	1.000	.876	.000	. ^c
	[Racial cat=1]	0 ^b	.	.	0	.	.	.	.
A friend	Intercept	15.755	1555.62	.000	1	.992			
	[Racial Cat=0]	-16.962	1555.621	.000	1	.991	4.300E-8	.000	. ^c
	[Racial Cat=1]	0 ^b	.	.	0	.	.	.	.
Some other non-relative	Intercept	-.090	4.241	.000	1	.983			
	[Racial Cat=0]	.182	.000	.	1	.	1.199	1.199	1.199
	[Racial cat=1.00]	0 ^b	.	.	0	.	.	.	.

Note. a. The reference category is: A son or daughter.

b. This parameter is set to zero because it is redundant.

c. Floating point overflow occurred while computing this statistic. Its value is therefore set to system missing.

Hypothesis Testing for RQ2

The Wald test statistics for the predictor racial group was 0.000 (Table 30) with an average associated P-value of 0.998 for all groups, while the alpha level was set to 0.05. There is no significant association between the predictor variable of race and dependent variable of perpetrator's emotional abuse (Wald = 0.000, P = 0.998), as displayed in Table 30, thus the null hypothesis for RQ1 is accepted. Based on the results of the multinomial logistic regression test, the null hypothesis is accepted, denoting, there is no significant difference in perpetrator characteristics in African American and non-African American victims of elder abuse.

The predictor variable, racial group, was tested a priori to verify there was no violation of the assumptions. The traditional .05 criterion of statistical significance was employed for tests. The logistic regression model was not statistically significant, χ^2 (66, N = 137) = 97.866, P > .005. However, African Americans likely to receive less emotional abuse from stranger, spouse or partner, parent or step-parent, brother or sister, son or daughter, coworker, a relative, and a neighbor vs friend compared to non-African Americans.

Table 31

Model Fitting Information for Financial Abuse

Model	Model Fitting Criteria		Likelihood Ratio Tests	
	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	36.791			
Final	29.332	7.460	9	.589

Table 32*Likelihood Ratio Test for Emotional Abuse*

Effect	Model Fitting Criteria		Likelihood Ratio Tests	
	-2 Log Likelihood of Reduced Model	Chi-Square	<i>df</i>	Sig.
Intercept	29.332 ^a	.000	0	.
Racial Categories	36.791	7.460	9	.589

Note. The chi-square statistic is the difference in -2 log-likelihoods between the final model and a reduced model. The reduced model is formed by omitting an effect from the final model. The null hypothesis is that all parameters of that effect are 0.

a. This reduced model is equivalent to the final model because omitting the effect does not increase the degrees of freedom.

The likelihood ratio test (Table 32) contains the overall contribution of each independent variable to the model. It shows which of the independent variables are statistically significant. The variable of interest, racial categories, was not statistically significant [$P = .589$ (the "Sig." column)].

Table 33*Parameter Estimate Table: Financial Abuse Perpetrators*

Person's relationship to the victim	Racial category	B	Std. Error	Wald	df	Sig.	Exp(b)	95% CI for Exp(B)	
								Lower bound	Upper bound
A stranger	Intercept	-18.562	.731	644.665	1	<.001			
	0	15.888	.000	.	1	.	7946479.956	7946479.956	7946479.956
	1	0 ^b	.	.	0	.		.	.
A parent or step-parent	Intercept	-17.869	.533	1122.422	1	<.001			
	0	15.888	.000	.	1	.		7946479.660	7946479.660
	1	0 ^b	.	.	0	.		.	.
A brother or sister	Intercept	-17.464	.448	1516.204	1	.000			
	0	15.888	.000	.	1	.		7946479.789	7946479.789
	1	0 ^b	.	.	0	.		.	.
A son or daughter	Intercept	-17.310	.421	1689.542	1	.000			
	0	15.888	.000	.	1	.		7946479.867	7946479.867
	1	0 ^b	.	.	0	.		.	.
Another relative	Intercept	-19.256	1.017	358.416	1	<.001			
	0	15.888	.000	.	1	.		7946479.748	7946479.748
	1	0 ^b	.	.	0	.		.	.
A coworker	Intercept	-18.562	.731	644.665	1	<.001			
	0	15.888	.000	.	1	.		7946479.840	7946479.840
	1	0 ^b	.	.	0	.		.	.
A neighbor	Intercept	.000	1.414	.000	1	1.000			
	0	-3.367	1.742	3.737	1	.053		.001	1.048
	1	0 ^b	.	.	0	.		.	.
(VOL) Don't know	Intercept	.000	1.414	.000	1	1.000			
	0	-1.758	1.495	1.383	1	.240		.009	3.228
	1	0 ^b	.	.	0	.		.	.
(VOL) Refused	Intercept	-17.464	.448	1516.204	1	.000			
	0	15.888	.000	.	1	.		7946479.908	7946479.908
	1	0 ^b	.	.	0	.		.	.

Note. a. The reference category is: A friend.

b. This parameter is set to zero because it is redundant.

The procedure was repeated for financial abuse cases to compare perpetrators characteristics between African and non-African Americans. The logistic regression model was not statistically significant, $\chi^2(9, N = 66) = 7.460, P > .005$. The P-value of

.589 indicates that the full model does not represent a significant improvement in fit over the null model. As a result, no significant difference in perpetrators characteristics observed in African American and non-African American victims of elder abuse. No previous research on the difference in perpetrators in African American and non-African American victims of elder abuse. According to study by Jackson (2016), 77% of perpetrators were found to be Caucasian, 38% of perpetrators lack high diploma, 70% of perpetrators were unmarried at the time of offense and 68% of perpetrators experienced interpersonal relationship problems. By abuse type, a partner/spouse is the most frequent of psychological, physical and sexual abuse; while adult children are the most common perpetrators in neglect; and the majority (54%) of financial abuse were perpetrated by family members.

Analysis of the NEMS Wave II data showed difference in perpetrators among the different abuse and mistreatment forms. In 137 emotional abuses that was reported, 40 (29.2%) were committed by a son or daughter, while 21 (15.3%) were by spouse or partner. The prevalence of financial abuse was 66 (8.5%). In financial abuse, the main perpetrator was a friend (47%), while spouse or partner (33.3%) were the main perpetrators in physical abuse case. All sexual abuse incidents were a partner or a spouse. Previous research by Weissberger et al. (2020) on 1939 calls showed financial abuse the most commonly reported (449 calls, 54.9%) and family members were the most commonly identified perpetrators (309 calls, 46.8%).

Summary

Section 3 of this study included the results and finding starting with brief review of the purpose, research question and hypothesis. It presented descriptive and demographic characteristics of the sample, evaluated statistical assumptions, provided statistical analysis organized by research questions and included charts and tables. The study examined NEMS Wave II survey for difference in reporting and help-seeking behavior between African Americans and non-African Americans using multinomial logistic regression analysis. The result confirmed that there is no statistically significant difference in reporting and help-seeking behavior between the two groups. The study also examined perpetrators characteristics and found no significance difference between the two groups. Further details of the finding including interpretation of the finding, limitations, recommendation, implications for Professional Practice and Social Change will be provided in the following section or section 4.

Section 4: Application to Professional Practice and Implications for Social Change

The purpose of this cross-sectional quantitative study was to explore the difference in reporting and help-seeking behavior between African Americans and non-African Americans. Analysis of the data for the difference in perpetrators' characteristics was another purpose of this study.

The study analyzed the data using multinomial logistic regression using NEMS Wave II data. Multinomial logistic regression enabled me to account for these potentially crucial features in a single model. It also provided a more accurate and precise understanding of the relationship between each factor and the dependent variable outcome. The independent variable in the sample was race and the dependent variable was help-seeking in the form of reporting abuse (financial and emotional abuse) and neglect, while gender, marital status, income level, and education were the covariates.

Analysis of the NEMS Wave II survey data set showed no statistically significant difference in reporting and help-seeking behavior between African Americans and non-African Americans. The study also examined perpetrators' characteristics and found no significant difference between the two groups. Analysis of the data set for financial abuse report, $\chi^2(12, N=66) = 15.789$, Nagelkerke $R^2 = .042$, $P > .05$ showed no significant unique contributions were made by race. The goodness of fit was explored for each pair of groups and no significant fit was found. No significant difference was observed between African Americans (coded 1) and non-African Americans (coded 0). More specifically, as shown in Table 19 in Section 3, under the odd ratio, the odds of non-African Americans reporting yes to financial abuse as opposed to not reporting was

[Exp(B)=.270], 0.270 times that of non-African Americans. This shows African Americans are less likely to report financial abuse compared to non-African Americans.

A similar analysis was conducted for emotional abuse. The addition of the predictor to a model that contained only the intercept did not significantly improve the fit between model and data, $\chi^2(9, N=137) = 4.812$, Nagelkerke $R^2 = .069$, $P > .05$. As shown in Table 26, no significant unique contributions were made by race. The goodness of fit was explored for each pair of groups and no significant fit was found. No significant difference was observed between African Americans (coded 1) and non-African Americans (coded 0). However, the odds of non-African Americans reporting emotional abuse as opposed to not reporting was [Exp(B)=.251], 0.251 times that of African Americans. This shows that emotional abuse is more likely underreported in African Americans than in non-African Americans.

Interpretation of the Findings

The assumption was that African Americans were more likely to underreport elder mistreatment and neglect due to different reasons. This includes historical discriminatory law enforcement practices that made African Americans distrust the system. The lack of social services, inequitable distribution of healthcare, and shortage of culturally relevant supports and community services in African American communities also led to a tendency of underreporting in this community of color. Furthermore, a strong family relationship, fear of retaliation, and fear of exposing family members to criminal justice and imprisonment led to a potential tendency to underreport.

This study identified that abuse reports differ among the different abuse types. The analysis also shows financial abuse is more likely to be reported to police or other authorities (37.9%) than other abuse incidents. However, emotional or psychological abuse was more prevalent (17.7%), followed by financial, physical, and sexual abuse (8.5%, 2.7%, & 0.26%, respectively). Only 28.6% of physical abuse and 10.9% of emotional abuse incidents were reported. However, no significant difference in reporting and help-seeking behavior between African Americans and non-African Americans was found.

The characteristics of perpetrators differ by abuse type. In financial abuse, the main perpetrators were a friend (47%), while a spouse or partner (33.3%) and son or daughter (29.2%) accounted for physical and emotional abuse incidents, respectively. All sexual abuse incidents were reported with a partner or a spouse as perpetrator. However, no significant difference in perpetrator characteristics was between African Americans and non-African Americans.

Further research is needed to conduct community-based participatory research studies to better understand elder mistreatment in communities of color and to explore the cultural impact of older adults' perceptions of abuse and the contextual factors that impact those understandings. Further research with representative data to explore the difference in help-seeking behavior among various racial groups. Investigate the impact of systemic racism and other contextual disparities on African American elders' reporting and help-seeking.

Finding in Literature

The topic of elder abuse is not only under-researched but also underreported, in particularly among African Americans. Of the existing literature, Moon and Williams (1993) found that African Americans were more likely to utilize the formal help-seeking option to resolve abuse and less likely to turn to family members and other relatives for assistance. Social disconnection, cultural barriers, self-blame, guilt feelings, lack of resources, and lack of knowledge were major barriers to help seeking in elderly Chinese (Yan, 2015). Enguidanos et al. (2014) study shows a strong sense of familial and community loyalty underlies African Americans' reluctance to publicly disclose and report elder abuse in a family--leading to a tendency to under-report harms and explains the unwillingness to acknowledge offenses reported by others. According to Joseph and Gonzalez (2018), negative experiences with the criminal justice system, discriminatory law enforcement practices, and distrust of the government have led African Americans to an unwillingness to report mistreatment to authorities.

Although perpetrator identity has been discussed extensively (Jackson, 2016; Klein et al., 2008; Acierno et al., 2008), limited literature exists on perpetrator characteristics in African Americans and non-African Americans. According to Jackson (2016), 77% of perpetrators were found to be Caucasian, 38% of perpetrators lack high diplomas, 70% of perpetrators were unmarried at the time of the offense and 68% of perpetrators experienced interpersonal relationship problems. By abuse type, a partner/spouse is the most frequent of psychological, physical, and sexual abuse; while adult children are the most common perpetrators of neglect; and the majority (54%) of

financial abuse was perpetrated by family members. According to Acierno et al., (2008), 57% of physical abuse acts were committed by partners or spouses, 50% were using drugs or alcohol, 30% had a history of mental illness, 33% were unemployed and 40% were socially isolated at the time of the mistreatment. In a court-based study of abused women in Rhode Island over the age of 50, nearly half of the suspects had prior criminal history, 40% had a prior case for a crime against the person, 20% had a prior record of a drug- or alcohol-related event (Klein et al., 2008).

Analysis of the NEMS Wave II data showed a difference in perpetrators among the different abuse and mistreatment forms. Of 137 cases emotional abuse that were reported, 40 (29.2%) were committed by a son or daughter, while 21 (15.3%) were by a spouse or partner. The prevalence of financial abuse was 66 (8.5%). In financial abuse, the main perpetrator was a friend (47%), while a spouse or partner (33.3%) was the main perpetrator in physical abuse cases. All sexual abuse incidents were a partner or a spouse.

Behavioral Model of Health Services Use (BMHSU)

In this study, I incorporated the BMHSU to discuss pre-disposing factors, facilitators, and barriers to help-seeking in the form of reporting.

Predisposing Factors

Predisposing factors are the sociocultural characteristics associated with the increased risk of elder mistreatment. Factors such as race/ethnicity, age, gender, health disparities, economic hardships, functional deficits, cognitive impairment, and social isolation have consistently been found to expose older adults to an increased threat of abuse. Systemic oppression and racism put African Americans at increased risk of further

mistreatment and exploitation. According to the World Health Organization (n.d.), marital status may be associated with an elevated risk of abuse and a study by Conrad et al. (2019) shows that 70% of elder abuse perpetrators were unmarried at the time of the offense.

Enabling Factors

The logistical aspect of obtaining care. In elder abuse and neglect, this includes education, income, social support, and relationship. Education is the knowledge, and awareness that people have concerning and towards the healthcare system. This includes recognizing abuse and neglect as a health issue and seeking appropriate care. According to Noonan et al. (2016), 35% of African Americans believe that health is a fate and dependent on destiny, while 50% feel health is a high priority. Family relation is another factor associated with reporting and help-seeking. According to Enguidanos et al. (2014), African Americans' reluctance to openly expose and denounce intra-family elder abuse stems from a strong feeling of family and community devotion. Protective of family members who mistreat others, older adults are hesitant to subject them to criminal justice and perhaps jail, indicating a proclivity to underreport harm (Enguidanos et al., 2014).

Community or social support is both a predictive and enabling factor. Community and social support include available health personnel, facilities, diversity in the healthcare system, and healthcare leadership. According to the National Center for Health Workforce Analysis (the National Center), Blacks or African Americans make up 11.6% of the U.S. health workforce compared to White, making up 64.4% of the health workforce. Generally, the U.S. has made substantial progress in improving residents'

health and reducing health disparities, but ongoing racial/ethnic, economic, and other social differences in health are both unacceptable and correctable (CDC, 2011). These barriers to health care affect the minorities such as African Americans, Latinos, Native Americans, Asian Americans, and Pacific Islanders. Consequently, racial and ethnic minority groups in the United States excessively lack access to affordable healthcare coverage or insurance, lack access to healthcare, and encounter worse health outcomes from preventable and treatable conditions.

Need Factors

The most urgent source of health service usage, resulting from functional and emotional health issues that necessitate the use of services in the form of reporting and help-seeking. Many factors-including social, cultural, economic, and physical determinants affect the need to report abuse and mistreatment. Lack of culturally appropriate community services for diverse communities, distrust of governmental authorities derived from years of oppressive interactions and shortage of culturally and ethnically attuned healthcare providers (Mouton et al., 2017) affect reporting and help-seeking.

Summary of Key Findings and Interpretations

Consequences for self and the perpetrator, strong sense of family and community loyalty, knowledge about services, lack of social networks and African American's mistrust of historically discriminatory law enforcement affects the community's ability to report abuse and help-seeking in African Americans (Enguidanos et al., 2014; Joseph et al., 2018). However, analysis of the NEMS Wave II survey data shows no significant

difference in reporting and help-seeking found between African American and non-African American victims of elder abuse. Analysis of the sample also showed that 29.2% of elder abuse were committed by a son or daughter while the main perpetrators in financial abuse were a friend. Spouse or partner is the main offenders in physical and sexual abuse. However, in this study, there was no significant difference observed in perpetrators characteristics between African American and non-African American victims of elder abuse. Findings in this study also suggest that more studies need to be conducted with an equal disbursement of individuals in each category.

Limitations of the Study

Research study limitations, as defined by Ross et al. (2019), represent weaknesses within a research design that may influence outcomes and conclusions of the research. A relevant presentation of the research limits should define the potential constraint, explain the importance, suggest alternate options, and discuss efforts to reduce the limitation. Similar to other research study, sample size was a major limitation of the present investigation.

One limitation of the research study is the lack of reliable method to detect elder abuse and neglect. The survey was based entirely on self-report, excluding adults with cognitive impairment. As Acierno (2018) described, there was also a lack of cooperation from the study participants. According to the author, the cooperation rate was 66% for the NEMS Wave I since the age 60 mistreated group and 57% for the comparison group for a total follow-up NEMS Wave II sample. The survey was a random digit dialing survey which has the potential to exclude persons who live in households with no landline

telephone and households with multiple landlines have a higher prospect of being selected for the sample.

Recommendations

The research study investigated the difference in reporting between African Americans and non-African Americans or how race affects reporting and help-seeking behavior while controlling for age, education, gender, income, and marital status covariates. This shows age, education, gender, income, and marital status affect the reporting and help-seeking. However, there is no research study on the extent age, education, gender, income, and marital status influence reporting and help-seeking among different racial groups. As a result, future research is necessary to investigate if the effect of age, education, gender, income, and marital status on reporting and help-seeking behavior among different racial groups differ significantly.

Furthermore, future studies should focus on perpetrators of elder abuse. This will help design and implement elderly abuse prevention targeted at the perpetrators. Perpetrators often don't know their action is abusive due to cultural influence and knowledge. As a result, an intervention targeting the perpetrators will help understand the cultural effects on perpetrator persons' perceptions of abuse and the contextual elements that influence such beliefs.

Implications for Professional Practice and Social Change

Professional Practice

An old saying, "An ounce of prevention is worth a pound of cure." It is always easier and cost-effective to stop disease and injury from happening in the first place than

to repair the harm and damage after it has happened. Similar to other diseases and disorders, elder abuse and neglect prevention is better than treatment. However, elder abuse is a complex problem, requiring deep understanding of the problem, designing, and implementing safeguards. The main challenge in elder prevention is recognizing the problem in the first place. This is because perceptions of elder abuse and neglect are frequently shaped by culture and circumstance, making recognizing the problem difficult. In African Americans and other racial groups, ethnocultural beliefs and sensitivities influence how elders identify, understand, explain, and tackle abuse and neglect.

Moreover, African American elders' perceptions of their ability to obtain safety and healing through systems-based solutions are multifaceted, poisoned by oppression and racial and complicated traumas. As a result, understanding how the African American community perceives abuse is critical for designing culturally appropriate adult safeguards, responses as well as increase detection, reporting and treatment. Anderson's (1995) Behavioral Model of Health Services Use (BMHSU) posited to explain how individuals make a decision and take action. The model showed higher service consumption levels are predicted by stronger predisposing factors (age, education, gender, marital status and race), enabling factors (household income, social support, and relationship), and need (emotional abuse, financial exploitation, health status, physical mistreatment, and sexual mistreatment). Past systemic oppression and racism put African Americans at increased risk of further mistreatment and exploitation, and understanding the risk and protective factors are essential to prevent elder abuse. Develop and implement community-based programs to educate and provide support for caregivers;

multidisciplinary team in healthcare system and in social service area by promoting cultural awareness among diverse team members to improve care, mitigate abuse and identify abuse victims.

Positive Social Change

Elder abuse and neglect study has been steadily growing. However, the area is still understudied, under-funded and lags behind comparable and related discipline of child abuse, domestic violence, and intimate partner violence. While the research study's findings may have a significant impact at all levels, it will more likely have a more significant impact at the societal and policy level. As described in Section 1, under subtopic "Significance of the study," the social change implications may include a better understanding of the reporting and help-seeking behavior of African Americans victims of elder abuse and identifying barriers to reporting. It may also contribute to the body of knowledge and literature on the facilitator of help-seeking behavior among victims of elder abuse and victims' characteristics associated with early disclosure and how socioeconomic status (education level, income, marital status) and the relationship between the victim and the perpetrator affect the help-seeking behavior of victim in the African American.

Social frameworks and contextual variables impact how older persons of various races describe, experience, report, and respond to abuse (Wallace et al., 2017).

Understanding how the African Americans community perceives abuse is critical for designing culturally appropriate adult safeguards and abuse responses. Understanding the barriers and fascinators in reporting, help-seeking, and understanding the perpetrator's

characteristics is essential in designing strategies and tailoring an educational intervention to help increase reporting and detection of elder mistreatment in the African American community. Moreover, the study finding might help ratify federal law to increase minority representation in healthcare, law enforcement, social services, and other first responders; more research to better understand elder mistreatment in a community of color; education to develop culturally competent law enforcement, healthcare, and social services personnel.

Conclusion

The result of the study showed there was no significant difference in reporting and help-seeking behavior between African Americans and non-African Americans. The result also not showed a significant racial difference in perpetrator's characteristics. The analysis of the data showed psychological abuse was the most predominant, followed by financial, physical, and sexual abuse. The analysis also shows financial abuse (37.9%) is more likely to be reported to police or other authorities than other abuse incidents. Only 28.6% of physical abuse and 10.9% of emotional abuse incidents were reported. None of the sexual abuse cases reported to the police or other authorities. In financial abuse, the main perpetrators were a friend (accounting for 47%), while the main physical abuse perpetrators were spouse or partner (33.3%) and son or daughter (29.2%) accounted for the majority of emotional abuse incidents. All sexual abuse incidents perpetrators were a partner or a spouse. The study found no significant difference in perpetrators characteristics between African Americans and non-African Americans.

This study provided new insight on how reporting and help-seeking behavior in African Americans compare to non-African Americans. The result confirms Beach et al. (2010) finding where the author found that African Americans were three times more likely than non-African Americans to report financial abuse and four times more likely to report psychological abuse. Moreover, the study shows African Americans were less likely to report abuse when the perpetrator was the family or close caregiver. The study also confirmed prior finding that becoming African Americans was associated with a higher relative risk of being a victim of financial abuse.

References

- Acierno, R. (2018). *National Elder Mistreatment Study: 5 Year follow-up of victims and matched non-victims [ICPSR 37275]*. Institute for Social Research University of Michigan. <https://doi.org/10.3886/ICPSR37275.v1>
- Acierno, R., Watkins, J., Hernandez-Tejada, M. A., Muzzy, W., Froom, G., Steedley, M., & Anetzberger, G. (2019). Mental health correlates of financial mistreatment in the national elder mistreatment study wave II. *Journal of Aging and Health*, 31(7), 1196–1211. <https://doi.org/10.1080/08946566.2017.1365031>
- Acierno, R., Hernandez, M. A., Amstadter, A. B., Resnick, H. S., Steve, K., Muzzy, W., & Kilpatrick, D. G. (2010). Prevalence and correlates of emotional, physical, sexual, and financial abuse and potential neglect in the United States: The National Elder Mistreatment Study. *American Journal of Public Health*, 100(2), 292-297.
- Acierno, R., Hernandez-Tejada, M., Muzzy, W., & Steve, K. (2009). National Elder Mistreatment Study. Washington, DC: National Institute of Justice, Office of Justice Programs, U.S. Department of Justice.
<https://www.ojp.gov/pdffiles1/nij/grants/226456.pdf>
- Administration on Aging. (2020, May). Profile of older Americans.
<https://acl.gov/sites/default/files/Aging%20and%20Disability%20in%20America/2019ProfileOlderAmericans508>

- Andersen, R. M. (1995). Revisiting the behavioral model and access to medical care: Does it matter? *Journal of Health and Social Behavior*, 36, 1–10. doi: <https://doi.org/10.2307/2137284>
- Aschengrau, A., & Seage, G. R., III. (2020). *Essentials of epidemiology in public health* (4th ed.). Jones & Bartlett.
- Band-Winterstein, T., Goldblatt, H., & Lev, S. (2021). Breaking the Taboo: Sexual Assault in Late Life as a Multifaceted Phenomenon—Toward an Integrative Theoretical Framework. *Trauma, Violence, & Abuse*, 22(1), 112–124. <https://doi.org/10.1177/1524838019832979>
- Beach, S. R., Schulz, R., Castle, N. G., Rosen, J. (2010). Financial exploitation and psychological mistreatment among older adults: Differences between African Americans and non-African Americans in a population-base survey. *Gerontologist*, (6),744–57
- Boston University. (n.d.). Internal and External Validity. <http://sphweb.bumc.bu.edu/otlt/mph-modules/ProgramEvaluation/ProgramEvaluation6.html>
- Brown, G. C. (2015). Living too long: the current focus of medical research on increasing the quantity, rather than the quality, of life is damaging our health and harming the economy. *EMBO reports*, 16(2), 137–141. <https://doi.org/10.15252/embr.201439518>

- Burnes, D., Acierno, R., & Hernandez-Tejada, M. (2019). Help-seeking among victims of elder abuse: Findings from the National Elder Mistreatment Study. *The Journals of Gerontology: Series B*, 74(5), 891-896
- Carney, A. (2020). Elder abuse: Forensic, legal and medical aspects. Academic Press an imprint of Elsevier. DOI: <https://doi.org/10.1016/B978-0-12-815779-4.00001>
- Centers for Disease Control and Prevention, (2020, May). *Violence prevention: Preventing elder abuse*.
<https://www.cdc.gov/violenceprevention/elderabuse/fastfact.html>
- Center for Disease Control. (2011, January 14). *Health disparities and inequalities report- United States. Morbidity and mortality weekly report*, 60.
- Centers for Disease Control and Prevention. (2016). *Elder abuse surveillance: Uniform definitions and recommended core data elements*.
https://www.cdc.gov/violenceprevention/pdf/ea_book_revised_2016.pdf
- Centers for Disease Control and Prevention. (n.d.) Fast facts: Preventing elder abuse.
<https://www.cdc.gov/violenceprevention/elderabuse/fastfact.html>
- Conrad, K. J., & Conrad, K. M. (2019). Abuser risk measure: Reports by alleged victims to adult protective services. *The Gerontologist*, 59(5), e403-e414.
- Dong, X., Chang, E., Wong, E. & Simon, M. A. (2014). Perceived barriers and facilitators to implement elder abuse intervention for victims and perpetrators: views from US Chinese older adults. *Journal of Adult Protection*, 16(5), 307–321.
<https://doi.org/10.1108/JAP-12-2013-0046>

- Enguidanos, S., DeLiema, M., Aguilar, I., Lambrinos, J., & Wilber, K. (2014). Multicultural voices: Attitudes of older adults in the United States about elder mistreatment. *Ageing and society*, *34*(5), 877–903.
<https://doi.org/10.1017/S0144686X12001389>
- Eberhardt, M. S., Ingram, D. D., Makuc, D. M., et al. (2001). *Urban and Rural Health Chartbook*. Hyattsville, MD: National Center for Health Statistics.
- Fleming, C. J., & Resick, P. A. (2017). Help-Seeking Behavior in Survivors of Intimate Partner Violence: Toward an Integrated Behavioral Model of Individual Factors. *Violence and victims*, *32*(2), 195–209. <https://doi.org/10.1891/0886-6708.VV-D-15-00065>
- Frieden, T. R. (2010). A framework for public health action: the health impact pyramid. *American journal of public health*, *100*(4), 590–595.
<https://doi.org/10.2105/AJPH.2009.185652>
- Glanz, K., Rimer, B. K., & Viswanath, K. (Eds.). (2015). *Health behavior: Theory, research, and practice* (5th ed.). San Francisco, CA: Jossey-Bass.
- Heaney, C. A., & Viswanath, A. (2015). Introduction to models of interpersonal influences on Health Behavior. In Glanz, K., Rimer, B. K. & Viswanath, K. (Eds). *Health behavior: Theory, research, and practice*. (pp. 60-68)
- Hetzel, L., & Smith, A. (2000). Economic and Statistic Administration, Bureau of the Census. *The 65 Years and Over Population*. Washington, DC: U.S. Department of Commerce; 2001. Report No. C2KBR/01-10.

- Jackson, S. L. (2016). All elder abuse perpetrators are not alike: The heterogeneity of elder abuse perpetrators and implications for intervention. *International journal of offender therapy and comparative criminology*, 60(3), 265-285.
- Joseph, J., & Gonzalez, A. (2018). Elder abuse in communities of color in the United States: A Literature review. In perspectives on elderly crime and victimization (pp. 125-139). Springer, Cham.
- Klein, A., Tobin, T., Salomon, A., & Dubois, J. (2008). A Statewide profile of abuse of older women and the criminal justice response.
- Lachs, M. S., Williams, C. S., O'Brien, S., Pillemer, K. A., & Charlson, M. E. (1998). The mortality of elder mistreatment. *The Journal of the American Medical Association*, 280(5), 428–432. <https://doi.org/10.1001/jama.280.5.428>
- Laumann, E. O., Leitsch, S. A., & Waite, L. J. (2008). Elder mistreatment in the United States: prevalence estimates from a nationally representative study. *The journals of gerontology. Series B, Psychological sciences and social sciences*, 63(4), S248–S254. <https://doi.org/10.1093/geronb/63.4.s248>
- Moon A, Williams, O. (1993). Perceptions of elder abuse and help-seeking patterns among African-American, Caucasian American, and Korean-American elderly women. *The Gerontologist*. 1993;33(3):386–95.
- Mouton, C. P., & Southerland, J. H. (2017). Elder abuse and culture: Africans and African Americans. In *Elder Abuse* (pp. 461-475). Springer, Cham.
- Nasser, H. (2019). The graying of America: More older adults than kids by 2035. Retrieved from <https://www.census.gov/library/stories/2018/03/graying-america>.

National Academies of Sciences, Engineering, and Medicine; Health and Medicine

Division; Board on Health Care Services; Committee on Health Care Utilization and Adults with Disabilities. (2018, March 1). Washington (DC): National Academies Press (US).

Noonan, A. S., Velasco-Mondragon, H. E., & Wagner, F. A. (2016). Improving the health of African Americans in the USA: An Overdue opportunity for social justice. *Public Health Rev* 37, 12. <https://doi.org/10.1186/s40985-016-0025-4>

Patino, C. M., & Ferreira, J. C. (2018). Internal and external validity: Can you apply research study results to your patients? *Jornal Brasileiro De Pneumologia: Publicacao Oficial da Sociedade Brasileira de Pneumologia e Tisiologia*, 44(3), 183. <https://doi.org/10.1590/S1806-37562018000000164>

Pillemer, K., Burnes, D., Riffin, C., & Lachs, M. S. (2016). Elder abuse: global situation, risk factors, and prevention strategies. *The Gerontologist*, 56(Suppl_2), S194-S205.

PRB. (2019, July). Fact sheet: Aging in the United States. Retrieved from <https://www.prb.org/aging-unitedstates-fact-sheet/>

Rickwood, D., & Thomas, K. (2012). Conceptual measurement framework for help-seeking for mental health problems. *Psychology research and behavior management*, 5, 173–183. <https://doi.org/10.2147/PRBM.S38707>

Rimer, B., K., & Brewer, N., T. (2015). Introduction to health behavior theories that focus on individuals. In K. Glanz, B. K. Rimer & K. Viswanath (Eds). *Health behavior: Theory, research, and practice*. (pp. 60-68)

- Rosay, A. B., & Mulford, C. F. (2017). Prevalence estimates and correlates of elder abuse in the United States: The national intimate partner and sexual violence survey. *Journal of Elder Abuse & Neglect*, 29(1), 1-14.
- Ross, P. T., & Bibler Zaidi, N. L. (2019). Limited by our limitations. Perspectives on medical education, 8(4), 261–264. <https://doi.org/10.1007/s40037-019-00530-x>
- Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). Experimental and quasi-experimental designs for generalized causal inference. Boston, MA: Houghton-Mifflin.
- Storey, J. E. (2020). Risk factors for elder abuse and neglect: A review of the literature. *Aggression and Violent Behavior*, 50, 101339.
- Sullivan, G. M., & Feinn, R. (2012). Using effect size-or why the P value is not enough. *Journal of graduate medical education*, 4(3), 279–282.
<https://doi.org/10.4300/JGME-D-12-00156.1>
- Tripathy, J. P. (2013). Secondary data analysis: Ethical issues and challenges. *Iranian Journal of Public Health*, 42(12), 1478–1479.
- Urban Institute. (2015, April 3). The US population is aging. Retrieved from <https://www.urban.org/policy-centers/cross-center-initiatives/program-retirement-policy/projects/data-warehouse/what-future-holds/us-population-aging>
- Wallace, R. B., & Crabb, V. L. (2017). Toward definitions of elder mistreatment. *Elder Abuse*, 3-20
- Weissberger, G. H., Goodman, M. C., Mosqueda, L., Schoen, J., Nguyen, A. L., Wilber, K. H., ... & Han, S. D. (2020). Elder abuse characteristics based on calls to the

National Center on elder abuse resource line. *Journal of Applied Gerontology*, *39(10)*, 1078-1087

Wong, J. S., & Waite, L. J. (2017). Elder mistreatment predicts later physical and psychological health: Results from a national longitudinal study. *Journal of Elder Abuse & Neglect*, *29(1)*, 15-42.

WHO (World Health Organization). (2017, March 8). Health impact assessment (HIA), determinants of health. Geneva, Switzerland. Retrieved from:

<http://www.who.int/hia/evidence/doh/en>

WHO. (2022, June 13). Abuse of the olde people. Retrieved from:

<https://www.who.int/news-room/fact-sheets/detail/abuse-of-older-people>

Yan, E. (2015). Elder abuse and help-seeking behavior in elderly Chinese. *Journal of Interpersonal Violence*, *30(15)*, 2683–2708.

<https://doi.org/10.1177/0886260514553628>

Yon, Y., Mikton, C. R., Gassoumis, Z. D., & Wilber, K. H. (2017). Elder abuse prevalence in community settings: a systematic review and meta-analysis. *The Lancet Global Health*, *5(2)*, e147-e156.

Yon, Y., Ramiro-Gonzalez, M., Mikton, C. R., & Dinesh Sethi, M. H. (2019). The prevalence of elder abuse in institutional settings: a systematic review and meta-analysis. *European Journal of Public Health*, *Volume 29, Issue 1*, Pages 58–67

Appendix: G*Power Analysis

