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Factors Affecting the Level of Grief Experienced by Men Whose Female Partner Died in the United States

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Walden University

College of Health Sciences and Public Policy

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Keona C. Lee

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2025

Abstract

Factors Affecting the Level of Grief Experienced by Men Whose Female Partner Died in

the United States

by

Keona C. Lee

MBA, University of Maryland University College, 2010

MS, University of Maryland University College, 2008

BA, University of Maryland College Park, 2002

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Public Health Epidemiology

Walden University

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Abstract

Grief is an emotional reaction to the loss of a loved one through death. Although grief is a universal human experience, its perspective is unique, and research has often ignored the varied experiences of racial/ethnic and cultural groups, particularly men of color in the United States. The purpose of this quantitative study was to measure the level of grief experienced by men whose female partner died and to determine whether ethnicity, having a prior mental health diagnosis, social support, and traumatic or anticipated loss significantly impacted their level of grief. The study was guided by the social-ecological model to explain any revealed associations. Descriptive statistics and linear multiple regression were used to analyze N=208 Amazon Mechanical Turk electronic survey responses. Results revealed that social support and type of loss had statistically significant associations, $R^2 = .254$, $p < .001$, and $R^2 = .284$, $p = .019$, respectively, with the level of grief in men whose female partner died. The findings indicated that for every 1-unit increase in perceived social support, the severity of grief decreased by 6.1%, 95% confidence interval (CI) [-0.097, -0.025]. For every 1-unit change in anticipated loss, the severity of grief decreased by 156%, 95% CI [-2.350, -0.784]. There were no statistically significant findings for ethnicity or prior mental health diagnoses. The findings may contribute to positive social change by helping public health practitioners support men who have lost a female partner. More targeted grief support could improve the lives of grieving men and their families and communities.

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Dedication

This dissertation is dedicated to my smart, funny, kind, and beautiful daughter, Kensley Carrington Lee. God took all the best parts of me and created you. Thank you for keeping Mommy's secret and not letting anyone know about the late nights Mommy was studying to become a doctor. Thank you for sharing your time with me and understanding when Mommy had to do work. You are the very best part of me. This is dedicated to my mother, Jean Ellen Lee. Mommy, I miss you so much and hope you are proud of me. I hope that from heaven you see a job well done. I dedicate this dissertation to my eight-year-old self; we did it. God, I am nothing without you. Thank you for living in me and breathing through me. Thank you for hearing my prayers and not passing me by. All the glory belongs to you. Forever and ever. Amen.

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Chapter 1: Introduction to the Study

Grief in men has been described as stoic, task-oriented, and less emotional than grief responses in women, yet increased risk of morbidity and mortality has been linked to men whose partner died (Tallant, 2020). The loss of a loved one is considered one of the most stressful life experiences, with grief response to the loss effectuated by a person's personality, age, gender, culture, social support, and mental health history (National Institutes of Health [NIH], 2020). In a 2008 NIH study of more than 370,000 older married couples in the United States of America, researchers found that within the first 3 months after one spouse dies, the chance of a partner also passing is between 30% and 90%. For men, the death of a wife was correlated with an 18% increase in mortality (NIH, 2020).

Grief is recognized as a universal experience, but individual responses to grief vary based on personality and social and cultural expectations (Tallant, 2020). Some cultural norms reinforce the idea that men are expected to assume the role of head of household and to be strong, independent, and less nurturing of social relationships than women (Tallant, 2020). Grief in men has not been well studied among men of color, and the emotional, psychological, and physical state of men following the loss of a partner often manifests as morbidity and mortality after bereavement (Wilson & O'Connor, 2022). Psychosocial adjustment to partner loss includes incidence of depression, anxiety, and post-traumatic stress disorder, and bereavement-related mortality is highest in the weeks and months immediately after the loss and remains elevated for several years in men (Nielsen et al., 2019). In the current study, I explored whether ethnicity, social

support, traumatic or anticipated loss, and having a prior mental health diagnosis were significantly associated with the level of grief in men to contribute to epidemiological information on grief responses based on sociocultural experiences. The study aimed to extend quantitative research on grief in men by operationalizing factors that may have associations with the level of grief in men whose female partner died, which was lacking in previous research.

This chapter outlines the background, problem statement, and purpose of this study. The chapter includes the statistical methods I used when exploring grief in men and presents recent literature on the topic. The research questions, nature of the study, theoretical framework, assumptions, scope and delimitations, and limitations are also provided.

Background

The acute pain that accompanies the loss of a loved one (Wilson & O'Connor, 2022) or the emotional, psychological, and physical state following the loss of a loved one (Tallant, 2020) are common ways of defining grief. Although these definitions are considered universal, they do not include social and cultural aspects of grief that differ across racial or ethnically diverse groups of men who experience grief from the death of their female partner. Thanatological research on death reactions and bereavement in Blacks revealed that Blacks experienced more complicated and traumatic forms of grief and more physical and mental health challenges during the grief processes (Jones-Eversley & Rice, II, 2022). For some men, the loss of a partner meant an increased risk of common mental disorders (Blanner Kristiansen et al., 2019) and social isolation (Chen,

2020); for other men, the loss of a partner resulted in impaired daily functioning, increased morbidity, and mortality (Nielsen et al., 2019).

There are three types of grief: anticipatory, normal or common, and complicated (NIH, 2020). Anticipatory grief occurs leading up to a death. It may be felt by the person's loved ones or by the person dying, and it usually involves persons with terminal illnesses (NIH, 2020). Normal or common grief begins soon after the person's death and is experienced by the loved ones and family. It is grief that happens in most people who have experienced a loss and involves being able to accept the loss and continue with daily activities (NIH, 2020). Complicated grief lasts longer than normal grief, is experienced by loved ones and family, and happens when symptoms do not improve over long periods (NIH, 2020). A person who experiences complicated grief has multiple areas of their lives impacted and a decreased ability to continue with daily activities (NIH, 2020). According to reports from the National Cancer Institute, personality, age, gender, cultural and religious background, coping skills and mental health history, support systems, social and financial position, and the relationship with the person who died were the factors that affected the type of grief a person experienced (NIH, 2020). These researchers suggested that people with certain personality traits were more likely to have lasting depression after their loss and that, in general, younger bereaved people had more problems after a loss than older bereaved people (NIH, 2020). The NIH studies also reported that men had more problems than women after a spouse's death and that although grief occurred in all cultures, some studies showed that religion helped people cope better with grief. The NIH studies found that a lack of social support increased the chance of having problems

coping with a loss and that social support included the person's family, friends, neighbors, and community in addition to the psychological, physical, and financial support from those people.

In 2017, approximately 3.3 million men and 11.6 million women in the United States were widowed, with most of these being 65 years and older (Garcini et al., 2021). With Americans living longer and being more likely to experience partner loss, researchers have been focused on using measurement tools and evaluating factors related to grief in response to this public health issue (Szuhany et al., 2021). Measurement tools such as Brief COPE, Inventory of Complicated Grief (ICG), and Resilience Scale have been used to evaluate coping strategies and grief trajectories (Fisher et al., 2020). There was little research that used measurement tools to assess grief responses that combined social-cultural factors that impacted grief in men, (Wilson & O'Connor, 2022). Preloss and postloss predictors were used in a prospective study of bereavement where researchers found that chronic depression and chronic grief were positively associated with preexisting depression and that grief trajectories were influenced by the individual's prebereavement mental state and their social support following loss (Tallant, 2020). There was no research that included quantitative measurement tools to evaluate distributions and social determinants of deaths in Blacks and the cultural uniqueness and complexity of death, dying, and grief (Jones-Eversley & Rice, II, 2022) that impacted men.

Research reports included age, social support networks, and type of death as factors related to grief responses. The effect of social support as a stress buffer between

depression and grief reactions in bereaved single older adults was studied, and it was found that the perceived availability of functional support from family, friends, and neighborhood added support to the stress-buffering model (Chen, 2022). Researchers suggested that social support contributed to protecting older adults from negative mental health outcomes. However, the findings did not include group comparisons based on race or ethnicity, and Hispanics and Asian Americans were largely underrepresented (Chen, 2022). Wilson and O'Connor (2022) suggested in a recent review of approximately 4,000 articles published on grief and bereavement that only 100 of the studies included Black Americans in the sample. Wilson and O'Connor also indicated that losses that occurred without warning or in a traumatic manner resulted in traumatic bereavement, with individuals having to mourn the loss and cope with the trauma that accompanied the death. Most research overlooked grief in men who were younger than 65 and who were not White (Jones-Eversley & Rice, II, 2022) or who were in partnered relationships.

Based on some of the previous research findings that included independent variables in grief studies, I determined the need to control for age, income, education, and marital status to mitigate the possible confounding effect of these covariates on the dependent variable. In this study, I considered variables including ethnicity, social support, type of female partner loss, and prior mental health diagnoses as factors that may have associations with levels of grief in men. Researchers' knowledge of the varied social and cultural grief experiences of ethnically diverse groups of men helps public health professionals better predict antecedent factors that may affect how men respond to the grief of losing a female partner, thereby fostering more targeted grief support.

Problem Statement

There was a lack of knowledge regarding the possible association between ethnicity, social support, traumatic or anticipated loss, and prior mental health diagnoses and the level of grief in men whose female partner died. Although grief is a universal human experience in the United States, its perspective is unique and ignores the varied experiences of racial/ethnic and cultural groups, particularly men of color (Wilson & O'Connor, 2022). Grief in men has not been well studied among men of color, and the emotional, psychological, and physical state following the loss is frequently manifested as morbidity and mortality after bereavement in this group (Jones-Eversley & Rice, II, 2022; Tallant, 2020). Black families disproportionately affected by high morbidity and mortality rates translate into significantly higher death, grief, and bereavement needs for those mourning the losses (Jones-Eversley & Rice, II, 2022). Researchers, clinicians, and practitioners identified an interconnected need for the epidemiology of death, social epidemiology of death, and thanatology to examine death among Blacks (Jones-Eversley & Rice, II, 2022) and suggested that there was an underrepresentation in the research on understanding the psychological impact (Wilson & O'Connor, 2022).

Psychosocial adjustment to partner loss includes incidence of depression, anxiety, and post-traumatic stress disorder and bereavement-related mortality and is highest in the weeks and months immediately after the loss and remains elevated for several years in men (Nielsen et al., 2019). In addition to navigating their grief, bereaved men who are parents are the critical element for their family's adaptation and their children's adjustment to the loss of a parent. However, the psychological well-being of these

bereaved parents, especially bereaved men, is understudied (Yopp et al., 2019). For some groups, social support seemed to enhance well-being and the social determinants of health following the loss of a partner (Cacciatore et al., 2021), although lack of support resulted in poor health outcomes and adversely affected emotional, psychological, and physical well-being (Cacciatore et al., 2021). Some cultural norms reinforced the idea that men were expected to assume the role of head of household and to be strong, independent, and less nurturing of social relationships than women (Tallant, 2020). This suggested that partner loss may have had a strong impact on social support available for men who already relied less on and had less contact with others, resulting in social isolation and grief severity when their partner died (Freak-Poli et al., 2022). There was a need for quantitative research examining the possible association between ethnicity, social support, traumatic or anticipated loss, and prior mental health diagnosis, and the level of grief in men whose female partners died.

Purpose of the Study

The purpose of this quantitative study was to examine whether ethnicity, social support, traumatic or anticipated loss, and having a prior mental health diagnosis impacted the level of grief experienced by men whose female partner died. The independent variables were ethnicity, social support, traumatic or anticipated loss, and having a prior mental health diagnosis. The dependent variable was the level of grief. Additionally, the covariates were age, income, education, and marital status.

Research Questions and Hypotheses

The following research questions (RQs) and hypotheses were used to address the objective of this study:

RQ1: What is the association between ethnicity and level of grief among men whose female partner died after controlling for age, income, education, and marital status?

H_01 : There is no association between ethnicity and level of grief among men whose female partner died after controlling for age, income, education, and marital status.

H_a1 : There is an association between ethnicity and level of grief among men whose female partner died after controlling for age, income, education, and marital status.

RQ2: What is the association between prior mental health diagnoses (anxiety and depression) and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status?

H_02 : There is no association between prior mental health diagnosis and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status.

H_a2 : There is an association between prior mental health diagnoses and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status.

RQ3: What is the association between perceived social support and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status?

H₀₃: There is no association between perceived social support and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status.

H_{a3}: There is an association between perceived social support and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status.

RQ4: What is the association between the type of loss and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status?

H₀₄: There is no association between the type of loss and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status.

H_{a4}: There is an association between the type of loss and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status.

RQ5: Does the ethnicity of men whose female partner died modify any association between perceived social support and the level of grief after controlling for age, income, education, and marital status?

H₀₅: The ethnicity of men whose female partner died does not modify any association between perceived social support and the level of grief after controlling for age, income, education, and marital status.

H_{a5}: The ethnicity of men whose female partner died does modify the association between perceived social support and the level of grief after controlling for age, income, education, and marital status.

Theoretical Framework for the Study

The study was grounded in the social-ecological model (SEM) developed from Urie Bronfenbrenner's ecological systems theory that was later refined by Kenneth McLeroy's framework for health promotion programs (McClay et al., 2023). Bronfenbrenner's ecological systems theory was initially created using children's development and the complex system of relationships affected by multiple levels of their surrounding environment (Guy-Evans, 2024). The environment was divided into five systems: microsystem, mesosystem, exosystem, macrosystem, and chronosystem, with the microsystem being the most influential level for children, encompassing their immediate environment, such as their parents and school (Guy-Evans, 2024). Using children as an example, the mesosystem level included the interaction between a child's peer group and family, and the exosystem level was the formal and informal social structures such as local government, mass media, and extended family (Guy-Evans, 2024). The macrosystem level was what Bronfenbrenner identified as the children's cultural ideologies, attitudes, beliefs, gender roles, and expectations, and social conditions that shaped them, and the final, chronosystem level, related to the child's shifts and transitions over their lifetime and how they responded to them (Guy-Evans, 2024).

Bronfenbrenner later revised his theory shifting his focus from environmental influences to developmental processes that individuals experienced over time (Guy-Evans, 2024). He named this revised model the bioecological model and indicated that although the broader environmental systems would still be acknowledged, the reciprocal processes between the actively evolving individual and their immediate settings were of importance (Guy-Evans, 2024). McLeroy et al. (1988) posited that the decades-long focus in the United States of America on preventing disability and death through changes in individual behaviors ignored what was known about human behavior and minimized the importance of evidence about environmental assault on health. McLeroy borrowed from Bronfenbrenner's model and adopted levels of factors focused on patterned behaviors (McLeroy et al., 1988). The ecological model for health promotion included intrapersonal factors related to an individual's attitudes and behaviors and interpersonal processes involving formal and informal social networks such as social support systems and family (McLeroy et al., 1988). The third level involved factors such as organizational and social institutions with rules and regulations, and the fourth level of community factors that involved the relationships between the organizations and institutions (McLeroy et al., 1988). The final level involved local, state, and national laws and policies (McLeory et al., 1988).

The death of a spouse has been considered one of the most profound losses in a person's life (Barros-Lane et al., 2024). The interconnected nature of life partners often begins with the surviving partner navigating their own grief and mental health and facing the reality of a new identity without their spouse. For some, they will also be raising

grieving dependent children, adding to their difficulty with adjusting to relationships with in-laws and navigating social welfare, financial, educational, and legal systems (Barros-Lane et al., 2024). The social-ecological model was the theoretical framework for this study, as it has been used in previous studies on bereaved spouses and grief in men, and it comprises the multiple facets of an individual's life and the interconnectedness of system-level influences that postulate possible associations.

The research questions included factors relevant to the five system levels of Bronfenbrenner's model and the five factors in McLeroy's health promotion framework. Ethnicity, social support, age, education, income, and marital status are micro-, meso-, exo-, and macrosystemic elements reflected in Bronfenbrenner's model and a part of the intrapersonal, interpersonal, and community factors in McLeroy's framework. The microsystem is the first system level and contains things that have direct contact with the individual (Guy-Evans, 2024). Education, income, and marital status are the variables from this study that exist in the microsystem level of Bronfenbrenner's model. Social support exists in the microsystem, mesosystem, and exosystem levels based on who is providing the support. For this study, I analyzed social support at the micro and mesosystem levels. Ethnicity exists in the micro and macrosystem levels of the model. An individual's ethnicity is predicated on their parents and family, but the larger ethnic group to which the individual, parents, and family belong shares common social norms, beliefs, and culture. The interactions of the microsystems are the mesosystem, and the five systems in the model are interrelated (Guy-Evans, 2024). Analysis of the level of grief in men whose female partner died involves investigating the social-ecological

theory of bereaved men's individual behavior and the environmental determinants that impact well-being, as detailed in Chapter 2.

Nature of the Study

The quantitative study involved a cross-sectional design. A cross-sectional design allowed me to explore whether an association existed between the dependent variable (level of grief), the independent variables (ethnicity, type of loss, social support, and having a prior mental health diagnosis), and covariates (age, income, education, and marital status) at that specific point in time. It permitted me to purposely select from a large group of men who had a female partner who had died, and allowed the participants to refer retrospectively to the experience of their partner's death. The design allowed me to draw inferences from data across a large geographic region. Level of grief is a reaction score on the Adult Attitude to Grief scale and is indicated as overwhelmed, controlled, or resilient (Machin, 2001). Ethnicity is a categorical variable based on the minimum set of categories provided by the U.S. Department of Health & Human Services Office of Minority Health [OMH] (2023) and indicated by the participant's response to identifying as American Indian, Black, White, Hispanic, Asian, or Pacific Islander. Participants selected from either anticipated or traumatic loss for type of loss and yes or no for previous mental health diagnosis. Ranges were used for participants' ages in years (18-25, 26-45, 46-65, and 66 and older), annual income in U.S. dollars (under \$30,000, \$30,000-\$49,999, \$50,000-\$69,999, \$70,000-\$89,999, \$90,000-\$150,000, and over \$150,000) and education (some high school, no diploma, high school, diploma or general educational development (GED), some college, no degree, Bachelor's degree, Master's

degree, or Advanced/Professional/Doctorate) and marital status specified status at the time of female partner's death in categories such as never married (including individuals living with a female partner), married, separated, or divorced. Participants indicated their perception of social support by selecting *yes* or *no*, and if *yes*, specifying which level(s) of support (individual, nuclear family and friends, neighbors and community, extended family and family friends, and/or local government and health professionals. A summary of the variables is included in Table 1.

Table 1*Study Variables*

Variable	Type	Value	Operationalization
Level of grief	Continuous	Overwhelmed (>24) Controlled (21–23) Resilient (<20)	AAG scale
Ethnicity	Categorical	Black, non-Hispanic/Latino Hispanic/Latino White, non-Hispanic/Latino Asian, Pacific Islander, Native American	Self-report
Type of loss	Categorical	Anticipate Traumatic	Self-report
Prior diagnosis (anxiety and/or depression)	Categorical	Yes No	Self-report
Social support	Continuous	12–35 36–60 61–84	MSPSS scale
Age	Continuous	18–25 26–45 46–65 66 and older	Self-report
Income	Continuous	Under \$30,000 \$30,000–\$49,999 \$50,000–\$69,999 \$70,000–\$89,999 \$90,000–\$150,000 Over \$150,000	Self-report
Education	Categorical	Some high school, no diploma High school diploma or GED Some college, no degree Bachelor’s degree Master’s degree	Self-report
Marital status	Categorical	Never married Married Separated Divorced	Self-report

Data gathered from surveys of adult men whose female partner died using the online crowdsourcing platform MTurk was used for analysis in this quantitative study. MTurk's platform allowed me access to participants across the United States of America, thus increasing the probability of me reaching or exceeding my target sample size. MTurk was not easier for creating surveys; it was a more financially feasible option for me, with other platforms requiring monthly and annual subscriptions. Qualtrics was an easier platform for me to create the survey, but its subscription cost was less desirable when disseminating it. MTurk workers had a brief description of my survey and viewed the tasks to decide if they wanted to participate. Participants provided demographic information and responded to questions related to factors that may contribute to their grief responses from the death of their female partners. The data was analyzed using linear multiple regression.

Definitions

The following definitions were provided to address the ambiguity of this study:

Age: a noun indicating the amount of time during which a person or animal has lived (Encyclopedia Britannica, 2024). Reported as age at last birthday (Centers for Disease Control and Prevention [CDC], 2022).

Education: a noun indicating the knowledge, skill, and understanding that you get from attending school, college, or university (Encyclopedia Britannica, 2024).

Ethnicity: refers to the common language, rituals, and preferences for music and foods shared by a particular group and the historical experiences that underlie the health status that they occupy (NIMH, 2001, Chapter 1).

Grief: “the anguish experienced after significant loss, usually the death of a loved one. Grief includes physiological distress, separation anxiety, confusion, yearning, obsessive dwelling on the past, and apprehension about the future” (American Psychological Association, 2023).

Income: a noun indicating money that is earned from work, investments, business, etc. (Encyclopedia Britannica, 2024).

Level of grief: categorized as being overwhelmed, controlled, or resilient as measured by the Adult Attitude to Grief (AAG) scale (Machin, 2001).

Marital status: a noun indicating the state of being married or not married. It is used on official forms to ask if a person is married, single, divorced, or widowed (Encyclopedia Britannica, 2024).

Prior mental health diagnosis: a past clinical diagnosis of a mental health condition involving changes in emotion, thinking, or behavior (or a combination of these) (American Psychiatric Association, 2024).

Social support: the extent to which an individual believes that his/her needs for support, information, and feedback are fulfilled (Hupcey, 1998; Procidano & Walker-Smith, 1997).

Type of loss: traumatic loss is the death of a loved one due to unexpected or violent circumstances (Ennis et al., 2023). Anticipatory loss is a type of grief that occurs before the death happens and is anticipated by the patient as well as the family (Johns Hopkins Medicine, 2024).

Assumptions

I assumed that participants would provide answers to the survey questions based on their ability to recall the information and respond truthfully and honestly to the best of their ability. Truthful and honest responses were expected but could not be demonstrated with the study involving human participants' responses to sensitive questions. It was necessary to assume that participants would answer the survey questions truthfully and honestly, as dishonest responses would lead to inaccurate data and undermine the validity of the research findings (Creswell & Creswell, 2018). Participants were provided with informed consent and the ability to withdraw from this voluntary study without inhibition. Informed consent was necessary as it provided participants with the potential benefits and risks of the research and contributed to ethical standards by ensuring participants' rights are protected (Kadam, 2017).

I assumed that my data would pass the first two assumptions, which enabled me to use a linear multiple regression test to statistically discover if there was a relationship between my continuous dependent and four independent variables (Laerd Statistics, 2018). Also, I assumed that based on their use in previous research evaluating the level of grief, the AAG, Prolonged Grief Disorder (PG-13-Revised), and Multidimensional Scale of Perceived Social Support (MSPSS) scales were reliable and valid measurement tools (Harrop et al., 2023; Prigerson et al., 2021; Machin, 2001; Zimet et al., 1988). To ensure that the research findings were credible and that the analysis was accurate, it was necessary to assume that the measurement tool was reliable and valid (Creswell & Creswell, 2018). I included research studies regarding the validity and reliability of the

use of the Multidimensional Scale of Perceived Social Support (MSPSS), the Adult Attitude to Grief (AAG) scale, and the Prolonged Grief Disorder (PG-13-Revised) scale in this study.

Scope and Delimitations

The scope of this study was men in the United States of America whose female partner died, and an examination of factors including ethnicity, social supports, type of loss, and having a prior mental health condition on their grief response. These factors were chosen as a provision of need for more research on racial and ethnic minorities who bear a greater burden from unmet mental health needs and suffer a greater loss to their overall health and productivity (NIMH, 2001). The delimitation of this study was that it would include all men in the United States of America whose female partner died, excluding men from other socially and ethnically diverse communities outside the United States of America. This implied that the findings would be generalizable only to men in the United States of America, thus avoiding construct and content challenges from including men under different societal and political standards in other countries. The social-ecological model was the theoretical framework for this study as it was the background and foundation for the interconnected relationship between an individual's behavior and the immediate and distant factors that influence their social support and well-being (Barros-Lane et al., 2024; McLeroy et al., 1988). There was substantial research on the social-ecological model and grief in women (Barros-Lane et al., 2024); thus, women were outside the scope of this study.

Limitations

This study had methodological limitations. First, the cross-sectional design does not permit follow-up with participants or analysis of behaviors over periods (Creswell & Creswell, 2018), thus limiting the ability to establish cause-and-effect relationships. However, it was unnecessary to establish cause-and-effect in this study, as the outcome already existed, and the independent variables were possible associations.

Second, recall and nonresponse bias was possible as participants were asked to answer sensitive survey questions about life events. Recall bias often happens when participants do not want to remember specific details of past events and either leave them out when reporting or do not remember them accurately (Creswell & Creswell, 2018). Low response rates to surveys are also possible and can affect the validity of the findings (Creswell & Creswell, 2018). The research and survey questions used clear and concise language and the focus was on the participant, not a specific recollection of the grief event, limiting these effects.

Last, and as with the limitation on the use of surveys, there may have been difficulty understanding motivations behind survey responses and an inability to ask follow-up questions to clarify responses (Creswell & Creswell, 2018). Even with the large pool of participants on the MTurk platform, only a few participants may have been willing to participate in the online study. The survey questions used clear and concise language and participants were compensated for their time to address these potential limitations. Also, MTurk conducts pilot testing of the online population based on the research questions before allowing researchers to post surveys on the platform.

Significance

Grief in men is not well studied among men of color (Jones-Eversley & Rice, II, 2022; Tallant, 2020). Some cultural norms reinforced the social isolation and grief severity that men experienced when their partner died (Freak-Poli et al., 2022) often heightening the risk of poor health outcomes and the adverse effects on emotional, psychological, and physical well-being (Cacciatore et al., 2021). Researchers contended that for men, the death of a partner included incidence of depression, anxiety, and post-traumatic stress disorder immediately and for several years after their partners' death (Nielsen et al., 2019) but that there was an underrepresentation in research on understanding the psychological impact (Wilson & O'Connor, 2022). In a research study, social support was a contributor to protecting older adults from negative mental health outcomes and a stress buffer between depression and grief reactions (Chen, 2022). In their systematic review of the social-ecological model in bereaved spouses, Barros-Lane et al. (2024) suggested that there was a need for further research on gender dynamics in widowhood and community education and policy advocacy on the well-being of individuals experiencing grief. They contended that bereaved spouses faced tremendous challenges across all systems and levels and over an extended period of time and that strengthening family relationships, raising grief awareness in the community, and examining policies could potentially decrease the challenges for individuals whose partner has died (Barros-Lane et al., 2024).

This research study had potential implications for positive social change by helping men acknowledge their grief and seek social support to help them deal with their

grief and be better able to deal with family and friends. It may positively impact social determinants of health by normalizing men's ability to openly seek social support after experiencing the death of a female partner, improving their mental health and overall well-being, and reducing their cases of social isolation and grief severity. It may further add to the existing literature on the social-ecological model and grief, emphasizing the importance of interventions directed at challenging interpersonal, organizational, community, and public policy factors to support appropriate changes in the individual (McLeroy et al., 1988).

Summary

This first chapter detailed the background, problem statement, nature, and purpose of this study and outlined the research questions and hypotheses for the analysis of the variables' associations. Chapter 2 contains search strategies culminating in an exhaustive literature review of grief in men and an in-depth exploration of the social-ecological theoretical framework and key variables and concepts related to this study.

Chapter 2: Literature Review

There was a lack of knowledge regarding the possible association between ethnicity, social support, traumatic or anticipated loss, and prior mental health diagnoses and the level of grief in men whose female partner died. Grief in men has not been well studied among men of color, and the emotional, psychological, and physical state following the loss is frequently manifested as morbidity and mortality after bereavement in this group (Jones-Eversley & Rice, II, 2022; Tallant, 2020). Although grief is a universal human experience in the United States, its perspective ignores the varied experiences of racial/ethnic and cultural groups, particularly men of color (Wilson & O'Connor, 2022). The purpose of the current quantitative study was to explore whether ethnicity, social support, traumatic or anticipated loss, and having a prior mental health diagnosis impacted the level of grief experienced by men whose female partner died.

This chapter includes an extensive review of the recent literature on the study topic, organized into sections. The first section informs the audience of the search strategies used to obtain the literature. The second section provides the theoretical foundation relevant to the study. The third section includes recent literature on studies related to key variables and concepts consistent with the scope of my research. The chapter concludes with a summary of the main ideas discussed in the chapter and the literature gap.

Literature Search Strategy

I searched for peer-reviewed journals using SAGE Journals, PubMed, ScienceDirect, APA PsycTests, Mental Measurements Yearbook with Tests in Print,

ProQuest One Academic, Frontiers, Elsevier, ICPSR, and Taylor & Francis Online. The key search terms used in the databases were *grief, men, death of a spouse, widowhood, partner death, scale or test or questionnaire or assessment or measurement tool and grief or loss or bereavement or mourning and men*. These keywords returned thousands of search results, but hundreds were outdated, were studied outside the United States of America, were qualitative in nature, had small sample sizes, and included only White men. I filtered the results using the following criteria: peer-reviewed journal articles, published in the last 5 years, relevant to the study topic, and performed in the United States. Over 40 articles from the filtered search results were included in this literature review.

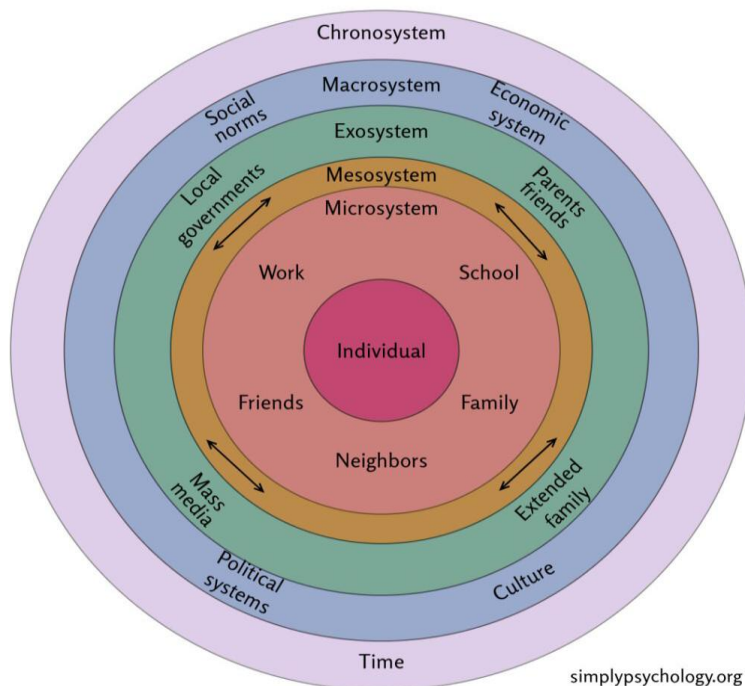
Theoretical Foundation

The social-ecological model set the framework for this study and was derived from Bronfenbrenner's ecological systems theory, which was later refined in McLeroy's framework for health promotion programs (McClay et al., 2023). Bronfenbrenner's research, shaped by his childhood experiences, focused on how children adjust to new environments and how factors such as environment, language, social interaction, and culture impact children's development (McClay et al., 2023). According to Bronfenbrenner, an individual's development is influenced by a series of interconnected environmental systems ranging from immediate surroundings such as family and friends to broader systems such as societal structures and culture (Guy-Evans, 2024). The systems include the microsystem, mesosystem, exosystem, macrosystem, and

chronosystem, each representative of different levels of environmental influences on individuals' behaviors, as shown in Figure 1.

Figure 1

Bronfenbrenner's Ecological Systems Theory



Note. From *Bronfenbrenner's ecological systems theory*, by O. Guy-Evans, 2024, Simply Psychology (<https://www.simplypsychology.org/bronfenbrenner.html>). Copyright 2024 by Simply Psychology. Reprinted with permission.

The ecological systems theory, also known as human ecology was largely influenced by Lev Vygotsky's social-cultural theory and Kurt Lewin's behaviorism theory (Crawford, 2020). It was a convergence of biological, psychological, and social sciences and was the way scientists sought to explain the ways an individual interacted with interrelated systems within their environments (Crawford, 2020). Social science

studies from the 1950s through the 1970s on child development focused only on the child or their parents (Crawford, 2020). Bronfenbrenner proposed a reciprocal relationship between child and parent and indicated that there were systems of influence within an individual's immediate life that the individual also impacted (Crawford, 2020).

Bronfenbrenner suggested a whole-person approach to examining an individual within their environment (Crawford, 2020). The first immediate environment was the microsystem, which included an individual's personality, beliefs, and temperament, and the people with whom an individual has daily, intimate, face-to-face contact (Crawford, 2020). The microsystem outlined the processes that would influence psychological development and behavioral changes and had the greatest impact on all the systems at work (Crawford, 2020). The mesosystem was considered a system of microsystems and was the second level of the ecology of human development (Crawford, 2020).

Bronfenbrenner indicated that the mesosystem involved interactions between different microsystems in the child's life and that as the microsystem involved an individual's immediate family, friends, teachers, and healthcare providers, the mesosystem was the interaction and interconnections between these groups (Guy-Evans, 2024). The third level, the exosystem, consisted of reciprocal interactive microsystems but was unique in that it had at least one microsystem that was not centered around the individual (Crawford, 2020). An example was the parent's workplace which although involved the parent, did not immediately involve the child. The workplace environment impacted the parent, who then influenced the child, and reciprocally, a sick child would influence a parent, who then would impact the work system (Crawford, 2020). The interactions

between and among the micro-, meso-, and exosystem were the fourth level, the macrosystem (Crawford, 2020). It fostered the overall cultural and societal structures developed from within the family in the microsystem (Crawford, 2020). The macrosystem included beliefs about gender roles, individualism, family structures, and social issues, and how these norms and values permeated an individual's microsystems (Guy-Evans, 2024). The fifth level was the chronosystem, which developed as a time construct in human development (Crawford, 2020). Time was not originally considered as a part of the theory but was later added to account for the aging and maturation of the individual and the time in which the individual lives and develops (Crawford, 2020).

In 1988, McLeroy refined what would later be called the ecological model for health promotion by proposing health promotion as a focus on individual and social environmental factors in the ecological model (McLeroy et al., 1988). He indicated that there had been a dramatic increase over the years in public, private, and professional interest in preventing disability and death in the United States of America through changes in individual behaviors, but that the ideology of individual responsibility for disease causation ignored what was known about human behavior and minimized important evidence about the environmental assault on health (McLeroy et al., 1988). Bronfenbrenner's model was used by McLeroy as the conceptual framework for examining patterned behavior (McLeroy et al., 1988). The ecological model for health promotion is used to categorize behaviors in five levels, namely intrapersonal factors, interpersonal processes, institutional factors, community factors, and public policy (McLeroy et al., 1988). The intrapersonal factors were the individual's attitudes,

behaviors, and development and the intervention strategies that targeted those characteristics (McLeroy et al., 1988). The interpersonal processes included relationships in the primary and familial groups like Bronfenbrenner's mesosystem. These groups were often social influences that researchers contended should have been modified to mitigate undesirable behaviors (McLeroy et al., 1988). The institutional factors involved social institutions with organizational characteristics such as rules and regulations for operation and the community factors were the relationships among the institutions and organizations (McLeroy et al., 1988). Researchers indicated that individuals spend one-half of their lives in organizational settings and that organizations may have positive or negative effects on the health of their members (McLeroy et al., 1988). Public policy was the fifth level, involving local, state, and national laws and policies (McLeroy et al., 1988). For years, the use of regulatory policies, procedures, and laws had been a defining characteristic of public health, protecting communities and succeeding in reducing death and disability from infectious diseases (McLeroy et al., 1988).

The SEM is a theory that has been applied previously in public health research to address a complex interplay of factors that influence health behaviors of men, women, adolescents, children, and combinations of these groups. A few examples were examination of interventions to prevent sports related deaths in high school sports (Scarneo et al., 2019), multilevel interventions to decrease sedentary time in children (Cholley-Gomez et al., 2023), and improvisation of access to care for adolescents and young adults (Harper et al., 2018). These studies were aligned with key assumptions and propositions of the theory which were: (1) there the assumption that behaviors are

influenced by multiple factors operating at various levels of influence on behavior the social and physical environments, (2) there are interactions across different levels of the system, (3) individuals are embedded within each system level and the relationship reciprocity exists between the levels which are between the individual and their environment is dynamic and constantly evolving, and, (3) individuals are embedded within each level, (4) it is important to collaborate across as many system levels as possible to address health issues (Kilanowski, 2017).

The SEM has been previously applied in research and was used in this study. Barros-Lane et al. (2024) conducted a systematic review using the SEM to investigate the grieving process in bereaved spouses. They specifically focused on widowhood in adults under 50, suggesting that the interconnected nature of life partners often means a bereaved spouse navigating their own grief and mental health issues as well as struggling with challenges of self-identity, raising grieving, dependent children, and sustaining relationships with in-laws (Barros Lane et al., 2024). These layers of interconnected relationships that affect human development are what they referred to as the microsystem and mesosystem of Bronfenbrenner's ecological systems theory (Barros-Lane et al., 2024). Martinez-Esquivel et al. (2024) deduced that men's mourning experiences were complex and multifaceted. They used an integrative review of data from 2017-2022 and examined quantitative, qualitative, and mixed-methods studies that analyzed men's mourning experiences based on the SEM (Martinez-Esquivel et al., 2024). They surmised that because of social categorization, men have adopted gender roles of being less expressive and more solitary in their experiences of bereavement, thus finding it difficult

to seek or accept help (Martinez-Esquivel et al., 2024). They concluded that future research should prioritize understanding and addressing the unique experiences of bereaved men (Martinez-Esquivel et al., 2024).

The SEM was chosen as the theoretical framework for this study as it offers a framework for exploring the interconnected systems and levels in the grieving process, including individual, intrapersonal, interpersonal, community, and public factors that show possible associations between protective and risk factors for negative social determinants of health. The theory is focused on the ecology of human development based on individuals and the interrelated systems of their environment (Crawford, 2020). Researchers indicated that in the SEM, the reciprocal relationship between the individual and their environment could positively or negatively impact their health (Crawford, 2020; McLeroy et al., 1988). This focus sets the foundation for determining whether factors in the model's systems have statistically significant relationships with grief in men whose female partner died. The framework has previously been used in grief studies on men and has been conceptualized and operationalized since the 1980s.

The SEM related to this study by building on the existing literature, which suggests that an integrative approach to understanding bereavement in men promotes health and gender equity and ensures that all individuals have access to equitable services for bereavement management that are specific to the needs of different population groups (Martinez-Esquivel et al., 2024). The study using the SEM supports researchers' ideas that gender dynamics in terms of how bereaved spouses are treated should be examined in future research and that a systems-oriented perspective is more encompassing of the

impact that community education and policy advocacy have on the well-being of individuals experiencing grief (Barros-Lane et al., 2024). Finally, the SEM is used to stress how cultural factors can influence development, creating greater cultural sensitivity among therapists, educators, and mental health professionals (Martinez-Esquivel et al., 2024).

Literature Review Related to Key Variables and Concepts

Grief, as a universal term, has been defined as the emotional, psychological, and physical state following a loss and described as an experience that individuals who form intimate social relationships will live through following the death of a loved one (Tallant, 2020). This broad definition of grief in literature ignores the social and cultural patterns of male grief and their associated health effects (Tallant, 2020) which some researchers argue are important factors in the way that Black Americans experience grief so disregarding these patterns is too narrow of a scope of a grief concept in Black men (Wilson & O'Connor, 2022; Tallant, 2020). Many research studies related to grief were qualitative in nature and focused on either type of grief (Ningning et al., 2018) or on the lived experience of widowhood (McCarthy et al., 2023; Jones et al., 2019). They were often aimed at understanding grief in men, but seldom included participants who were ethnically diverse, particularly Black men. Still, there were studies that included some constructs consistent with the scope of the study and emphasized the importance a socially and culturally diverse ways of looking at grief in men (Tallant, 2020). The recurring variables and concepts used in previous grief research studies on men were related to pathology and symptomology, social support, gender, and mental and physical

health. There were several research studies on grief that were quantitative and consistent with the methodology of the study.

Grief

Grief has been recognized as a universal experience manifested differently based on an individual's experience, personality, expectations, society, and culture (Tallant, 2020). O'Connor (2019) contended that despite the universality of grief experience, psychosomatic responses such as changes in cardiovascular and immune biomarkers during the grief process required further investigation. They indicated that measuring changes in biomarkers following the death of a loved one could help them understand mechanisms that lead to morbidity and mortality (O'Connor, 2019). Further, they alluded to a lack of communication between scientists who study the effects of grief and those who study the effects of grief on the mind which makes comprehending the relationship between risk factors and mental health outcomes in bereaved individuals difficult (O'Connor, 2019). They concluded that complicated grief was a risk factor for cognitive decline, and in the case of physical health, the effects were driven by those with the most severe grief reactions (O'Connor, 2019). Their research, however, involved small samples of individuals, thus inhibiting generalization to a larger population and lacking the establishment of reliability (O'Connor, 2019). These studies support more aligned research on the effects of grief and mental health using larger samples as necessary for comprehensive information on the grief process. Through this study, I sought to add to the existing scientific literature by evaluating risk factors in grief outcomes, such as mental health disorders diagnosed before the death event.

For individuals who experience the death of a loved one, grief can be one of the most traumatic life events with lasting effects on the individual's mental and physical health (Fagundes et al., 2019). Grief is the emotional, psychological, and physical responses experienced by those who are bereaved (Tallant, 2020) and may present as an acute or chronic process (Ennis et al., 2023). Anticipatory grief is the feeling of loss that occurs before death and may be felt by the individual dying and the loved one (Yoon et al., 2019) whereas normal or common grief begins shortly after a death occurs and symptoms eventually fade (Barboza & Seedall, 2023). Prolonged or complicated grief lasts longer than normal grief as a constant state of sadness and mourning. It has been mentioned in studies on spousal bereavement as a post-traumatic psychological outcome and a risk factor for morbidity and mortality (O'Connor, 2019; Ningning et al., 2018). In an integrative epidemiological study of psychology, neuroscience, immunology, and psychophysiology, researchers found immune cell changes in bereaved individuals indicating risks for morbidity and mortality and prolonged grief disorder (O'Connor, 2019). Ningning et al. (2018) examined prolonged grief and post-traumatic growth after the loss of a spouse and found contrary to other grief studies on spousal bereavement, the majority of their participants adjusted well and even flourished after losing a loved one. Their findings were aligned with Tallant (2020) who suggested that the grief process was not a universal experience but unique to individuals and based on personality, expectations, society, and culture (Tallant, 2020). Whether an individual experiences anticipated grief or prolonged grief after the loss, spousal death is a risk factor for morbidity and mortality that would benefit from more investigation. The studies by

Tallant (2020), O'Connor (2019), and Ningning et al. (2018) support an examination of the grief outcomes that may help clinicians and health providers identify grief disorders in ethnically diverse groups of men whose grief experiences are based on societal and cultural expectations.

Descriptions and theories of what happens in grief come from psychiatry and psychology (O'Connor, 2019). Current research relies on attachment theory and cognitive stress to understand the adaptation process after the death of a loved one by observing the increased intensity and frequency of sadness, anger and/or anxiety, emotional numbness, difficulty concentrating, dysregulation in sleep, and appetite following a death (O'Connor, 2019). A different grief theory, the dual process model of coping, was based on treatment seeking and influenced by an individual's oscillation between focusing on loss-related stressors and restoration-related stressors and, at other times, engaging in everyday life (O'Connor, 2019). A systematic review of studies that used the SEM to investigate challenges that arise due to early spousal loss presented findings aligned with Eckholdt et al. (2018) who suggested a loss of one's identity that happens during spousal loss (Barros-Lane et al., 2024). Also, researchers in the systematic review that used the SEM expressed need for increased grief support in future research and consideration for primary and secondary levels of hardship that are exacerbated by social norms (Barros-Lane et al., 2024). The micro, mesosystem, and macrosystem levels of the SEM were considered as determinants for grief support in this study.

Researcher George Bonanno (2015) demonstrated a few grief trajectories on adaptation after death using prospective data. He concluded that trajectories of grief can

be diverse and are primarily influenced by people's pre-bereavement mental state, their relationship with the deceased, and their social support following loss (Tallant, 2020; Maccallum et al., 2015). As researchers such as Eckholdt et al. (2018) and Boelen et al. (2016) indicated that prolonged and complicated grief reactions were criteria for mental health disorders and diseases after spousal loss, Bonanno demonstrated that the functioning of a person prior to the death event is also an important aspect of their trajectory of adaptation (Maccallum et al., 2015). A synthesis of these findings suggests that mental health status prior to the death event of a spouse is an essential component in research that requires further investigation into grief trajectory and factors related to outcome levels and resilience. With this study, I intended to add to grief research on mental health status prior to death events of a spouse using the SEM as the foundation for consideration of individual and social support with a focus on social and cultural norms unique to men.

Social Support

Recent researchers have used perceived social support and the attachment theory as foundations for topics on grief and bereavement support. According to Procidano and Walker-Smith (1997) examination of the prolific social support literature suggested that there was more evidence for social support's direct contribution to well-being and to symptomatology/distress than there was for the buffering hypothesis, but that confirmation of either model depended on how social support was operationalized. Chen (2022) tested the direct effect and stress-buffering models of social support in bereaved adults' depression and found that for this population of older adults, there was significant

support for the stress-buffering model. Conversely, a recent systematic review of the influence of social support on psychological well-being and a historical assessment of perceived social support resulted in researchers finding consistent evidence of the inverse association between social support and the presence of depression and other post-traumatic disorders in bereaved individuals (Scott et al., 2020; Zimet et al., 1988). Hupcey (1998) rationalized that perceived support was predicated on the provider-recipient interaction and could be operationalized as either positive or negative support based on the provider models. Similarly, Sarason et al. (1990) suggested that the size of a social support system and the satisfaction with the support received from that system were different dimensions of social support both independently important in coping with grief. The attachment theory and perceived social support theory were not selected for this study in the evaluation of social support as a contributing factor to grief level because they were subjective in nature, and directionality could not be confirmed.

Social support is considered a vital resource for mental health and may include emotional, informational, or tangible support. Cacciatore et al. (2021) indicated that previous studies of social support as the mediating benefit for proactive coping during the grief process found that it was able to mitigate the intensity and duration of psychological distress and poor physiological outcomes. They concluded that there were inconsistencies, however, in the quantitative conceptualization of the measurement of social support, thus limiting insight into the grief experience across different settings (Cacciatore et al., 2021). Further, researchers contended that perceived social support and attachment perspectives provided better explanations for empirical findings in support of

positive emotions from the support of family, friends, work associates, and community among bereaved individuals (Procidano & Walker-Smith, 1997). Contrarily, I used the SEM in this study as a better explanation for empirical findings as to whether support of positive emotions from family, friends, work associates, and community among bereaved individuals impacted grief in men. Addressing social support in the research question and using the SEM as a foundation may assist public health professionals with confirming which specific social support at the system levels may positively contribute to the mental and physical health of men whose female partner died.

Male Grief

Grief in men is not well studied among men of color and the emotional, psychological, and physical state following a loss oftentimes manifests as morbidity and mortality post-bereavement (O'Connor, 2019). The literature review revealed limited studies focused on grief in men and, particularly, Black men. Tallant (2020) described the male grief response as being viewed as less emotional than the female grief response based on Western standards, and that the variation involved pressure from culture and society, which were different, even though often used interchangeably. They indicated that the stereotypical differences between men and women in terms of grief responses characterized men as subordinate or marginalized when they did not comply with the characteristics of self-reliance and stoicism (Tallant, 2020). They found that increased emotional sharing and social support improved male coping and health following loss (Tallant, 2020). Their findings were aligned with this study that interventions that are specific to men may be associated with health benefits. They suggested that cultural and

societal responses were the internal and external factors, respectively, that affected an individual's response to loss (Tallant, 2020). An individual's personality, culture, and gender were fluid concepts and a part of one's identity (Tallant, 2020).

In their grief study of Latino men, Garcini et al. (2021) indicated that the grief process was different for this vulnerable population of men and a risk factor for diminished well-being in widowhood (Garcini et al., 2021). Demographic trends that showed approximately 3.3 million men in the United States of America being widowed showed an increase in Latino elders comprising 20% of the elderly population by 2050 (Garcini et al., 2021). These trends show the need for developing better understanding of the bereavement process and related health outcomes among Latinos facing widowhood (Garcini et al., 2021). They concluded a need for future research informing the health needs of widowed Latinos in the United States of America and enhanced methodology to understand the social disadvantages that contribute to negative health outcomes during and after spousal bereavement (Garcini et al., 2021). As Garcini et al. (2021) presented a case for Latino men, Wilson and O'Connor (2022) argued that for Black men, there was a combined axes of personal and collective grief rooted in the history of the racialization of Black people in America that resulted in a unique grief experience. They contended that the universal conceptualization of grief was too narrow in scope and did not account for the staggering amounts of losses in the Black community from the loss of loved ones, the loss of land, the loss of a sense of safety, and the loss of members of the community (Wilson & O'Connor, 2022). In another focus on male grief, Yopp et al. (2019) examined the depressive symptoms and grief intensity of widowed fathers and referenced a lack of

studies of widowed fathers throughout the first two years following their spouse's death. These research studies support the study's focus on male grief having a variation in health effects after the death of a female partner based on social and cultural considerations from societal standards. In this study, I sought to survey men's natural disposition to death of a female partner, mitigating the standards for portrayal of less emotion and correlate mental and physical health outcomes to level(s) of social support.

Mental and Physical Health

Mental disorders such as depression and anxiety disorders are highly prevalent worldwide (Kristiansen et al., 2019). The prevalence, however, is not equally distributed across population groups, with epidemiologic studies often stratifying for marital status with the disorders commonly found in those who are widowed (Kristiansen et al., 2019). According to Kristiansen et al. (2019), widowed men had more depressive symptoms than married men, but their depressive symptoms were not significantly different than those of women. Researchers across the world have studied the development of depressive symptoms and complicated grief symptoms after the death of a loved one (Boelen et al., 2016), but there have been no recent studies in the United States of America on mental health disorders and grief in men whose female partner has died. This was the intention of this study. In a Danish, researchers found that adults with a history of serious mental illness whose partners died were at increased risk for serious mental illness exacerbation post-bereavement (Tay et al., 2022). They found that 12.8% of partners with a history of serious mental illness experienced exacerbation two years after bereavement and increased odds of serious mental illness in the months following their

partner's death compared to before (Tay et al., 2022). This study, however, was also limited in that many of the partners were female, and the study was conducted in Denmark (Tay et al., 2022).

Common health aspects of grief are the associated increase in morbidity and mortality among those who are bereaved, particularly men (Tallant, 2020). Psychosocial adjustment to partner loss includes incidence of depression, anxiety, and post-traumatic stress disorder and bereavement-related mortality is highest in the weeks and months immediately after the loss and remains elevated for several years in men (Ningning et al., 2018). O'Connor (2019) used an integrative review of psychology, neuroscience, immunology, and psychophysiology of studies that investigated medical outcomes following loss. The integrative findings showed repeated increased rates of morbidity and mortality in bereaved samples compared to married controls (O'Connor, 2019). In their systematic review and meta-analysis on the prevalence of common mental disorders in widowhood, Blanner Kristiansen et al. (2019) concluded that widowed people had a high prevalence of depression and anxiety disorders, and that this population group was at high risk and needed attention in clinical practice. Fagundes et al. (2019) studied the biological markers for depressive symptoms in 99 bereaved individuals and found that grief was related to cardiovascular inflammation and there was a positive relationship between depression and inflammation. They indicated that the conceptualization of grief as associated with strong negative emotions could enhance inflammation through several neuroendocrine and autonomic nervous pathways and that future research should focus on a bereaved individual's biological markers of physical health (Fagundes et al., 2019).

Although the study provided insight into the depressive symptomology related to grief, there were only 27 men included in the research. This study was aligned with researchers suggesting further investigation on mental health diagnoses pre- and post-loss of a female partner in men to predict grief outcomes and to provide support at the appropriate time after the death.

Cultural Context

The combined axes of personal and collective grief was a novice theoretical conceptualization of the history and racialization of Black Americans that Wilson and O'Connor (2022) suggested resulted in a unique experience. They contended that grief incorporated diverse psychological and physical manifestations but could be experienced individually and communally, particularly in cases where a community experiences an extreme change or loss (Wilson & O'Connor, 2022). They argued that there was a lack of representation and, therefore, a lack of understanding of how contextual factors of living as a Black person in the United States of America differentially impact the experience of grief. Garcini et al. (2019) stated the same case for widowed Latino men and further indicated that social disadvantages expose individuals to more diminished health outcomes. These factors were the intended focus of the research questions in this study. This theoretical conceptualization, though identified as important in studies on Black Americans, has not been considered specifically in studies on Black men, particularly those whose female partner died. This theoretical concept is paramount to existing and future research studies on Black men, and it adds to existing literature that emphasizes the need to consider socially and culturally unique experiences.

Review and Synthesis

A review and synthesis of the literature showed that there were several theories surrounding grief but that the SEM could be used to provide deeper insight into grief in men as men's experiences following the death of a loved one were varied and interconnected (Martinez-Esquivel et al., 2024). Several studies related to the grief process existed, but focused on individual experiences, thus negating factors that uncovered the multiple-layered impact of family, friends, community, and social norms on an individual's grief (Barros-Lane et al., 2024; Martinez-Esquivel et al., 2024). Men whose partner died was one such example from the research where factors such as ethnicity, social support, traumatic death, and prevalence of anxiety and depression impacted the grief process. Wilson and O'Connor (2022) and Tallant (2020) attempted to address the cultural context of grief experienced by Black men that they believed was unlike the universal perspective in the United States of America. There were no studies that incorporated the cultural context model into the research on grief in men whose female partner died. Kristiansen et al. (2019) provided a systematic review and meta-analysis of the prevalence of common mental disorders in widowhood. Their analyses included only seven studies on men, and they suggested that further research was needed on men across different age groups (Kristiansen et al., 2019). Barros-Lane et al. (2024) systematically reviewed studies that examined challenges to young widowhood based on the SEM. Martinez-Esquivel et al. (2024) indicated in their integrative review that men's experiences following a loved one's death were varied and influenced by gender norms and expectations. They concluded that the SEM allowed an approach to the phenomena,

including sublevel factors that interacted bidirectionally, demonstrating the dynamism that arose with significant loss (Martinez-Esquivel et al., 2024). It remains that quantitative analysis of ethnicity, social support, traumatic or anticipated loss, and prior mental health diagnoses, and the level of grief in men whose female partner died, combined as contributing to grief in men whose female partner died, still has not been studied. An empirical study remains that includes previous research findings on the SEM and cultural context model in bereaved men of color grieving the loss of a spouse. Researchers agreed that a universal grief perspective misses the social, cultural, and gender-based factors that are unique in individuals and that factors contributing to the grief process are more interwoven than some historical findings suggested (Wilson & O'Connor, 2022; Tallant, 2020).

Summary and Conclusions

The broad definition of grief in literature ignores the social and cultural patterns and contributing mental and physical health factors that create a unique experience in men whose female partner died. Researchers explored grief in men but many of their studies lacked representative samples that included larger numbers of and ethnically diverse men. Research limitations included more findings on grief phenomena rather than empirical findings that evaluated correlations and uncertainty on the specific model that addressed research questions. Many types of grief were identified in the literature, but only one mentioned the level of severity. There is a paucity of information on grief in men whose female partner died. This study aimed to explore social and cultural considerations of grief in men whose female partner died and enrich the existing

literature to address grief in men in public health and clinical practices. Chapter 3 outlines the research design and methods in this study and addresses the research questions.

Chapter 3: Research Method

The purpose of this quantitative study was to examine whether ethnicity, social support, traumatic or anticipated loss, and having a prior mental health diagnosis impacted the level of grief experienced by men whose female partner died. In the literature, researchers suggested that grief was not a universal experience, especially in men of color, and involved social and cultural factors that should be considered (Wilson & O'Connor, 2022). In the current study, I considered social and cultural factors.

The research design and rationale are described in the first part of this chapter. The second part of this chapter addresses the methodology, which includes population details, sampling, procedures, recruitment and data collection procedures, and instrumentation. The third part of this chapter includes the data analysis plan, followed by potential threats to the validity and ethical considerations of the participants.

Research Design and Rationale

I used a quantitative cross-sectional research design. Quantitative research is an objective method of examining relationships among variables (Creswell & Creswell, 2018). Variables in quantitative research can be analyzed using statistical procedures by being assigned numerical values (Creswell & Creswell, 2018). Cross-sectional studies are a type of survey research and nonexperimental design (Creswell & Creswell, 2018). They allow researchers to provide a numeric description of variables in a population by studying correlations or associations in a population sample to generalize the outcomes from the sample to the population (Creswell & Creswell, 2018). A cross-sectional design was the most suitable type for the current study. It allowed me to collect survey data from

participants at a single point in time without manipulating the independent or dependent variables. The study consisted of independent variables (ethnicity, social support, traumatic or anticipated loss, and prior mental health diagnoses) as categorical variables. Ethnicity was an independent variable that may moderate the association between social support and the level of grief. The dependent variable (the level of grief), as measured by the Adult Attitude to Grief scale, was also categorical. The categorical covariates were age, income, education, and marital status. Cross-sectional designs are more cost-effective and efficient than longitudinal studies that follow participants over long periods (Creswell & Creswell, 2018). A cross-sectional design was appropriate for the current study because it allowed me to survey individuals to determine whether an association existed between ethnicity, social support, traumatic or anticipated loss, and having a prior mental health diagnosis and the level of grief experienced by men whose female partner died.

Based on the literature review, there were qualitative studies on grief in men that focused on how they experienced grief, but there were no quantitative studies on grief levels measured by a scale. The literature review also revealed that there was substantial research on grief in women (Barros-Lane et al., 2024) and that studies on grief in men did not include ethnically diverse groups of men (National Institute of Mental Health [NIMH], 2001). A quantitative cross-sectional design was consistent with research designs needed to advance knowledge on grief in men because it would include numerical values instead of phenomena to examine associations between variables, and it would focus on men, including ethnically diverse groups of men.

Primary data for this quantitative cross-sectional design was collected using an electronic survey on a web-based Amazon Mechanical Turk (MTurk) application. This public platform facilitates the delivery of surveys through its pool of over 75,000 actively subscribed respondents in the United States of America (Amazon Mechanical Turk, 2017). I selected a cross-sectional design for this study to mitigate time and resource constraints like those in longitudinal studies where data is collected over years and is expensive. This design choice reduces the attrition of participants, and MTurk contains a time feature that further allowed me to restrict the time for participants to complete the survey and receive payment, which also reduces attrition. The 75,000 active respondents in MTurk provided an existing pool of participants to survey, thus assisting me with time and resource constraints associated with finding participants over various locations. There was a fee associated with using MTurk. Participants were compensated for their time after completing the survey. The fee and compensation were projected as less than the cost of using a longitudinal study design.

Methodology

Population

The target population for this study was men, at least 18 years of age, who reside in the United States of America, whose female partner died, and who were currently registered as workers in MTurk. Participants in MTurk are called workers and are included or excluded from completing human intelligence tasks (HIT) based on qualifications set by the requester. The requester creates the surveys. MTurk workers with an approval rate of no less than 98% HITs will be eligible to participate. The

approval rate indicates that the worker consistently produces quality work that is accepted most of the time (Amazon Mechanical Turk, 2017). The workers must also reside in the United States of America to be eligible for the study and included as one of the MTurk location qualifications. The size of the target population is approximately less than 10% of the U.S. population (OMH, 2023).

Sampling and Sampling Procedures

The sampling strategy for this study was to survey men over the age of 18 who reside in the United States of America, whose female partner died, and who were currently registered as a worker in MTurk. MTurk allowed men to complete the survey even if they had not experienced the death of a female partner. However, those surveys were not included in the analysis because the survey questions were based on the grief experiences of men who had experienced the death of a female partner. Having men complete the survey who had not experienced the death of a female partner would jeopardize the validity of the sample. Including men who had not experienced the death of a female partner also required a larger pool of participants to meet the minimum sample requirements for the analysis. Convenience sampling was the sampling technique in MTurk to acquire workers who were already registered and who met the eligibility qualifications for the survey. The selection of workers based on inclusion factors allowed for easier access to the sample, as the workers volunteered to participate in the survey. Once the number of survey responses met the minimum sample size to affect power, the recording of the survey responses ended. Exclusion criteria were women, men under 18, and men not residing in the United States of America.

I used G*Power version 3.1.9.7 to determine the sample size for my study and found that a minimum of 85 participants were required for analysis. The test family in G*Power was *F* tests and the statistical test was linear multiple regression: fixed model, R^2 increase. Linear multiple regression was selected as the statistical test because there were more than two independent variables and one dependent continuous variable (Ozcan, 2025). The numerical scores in the surveys were better predictors of the relationship between variables in linear multiple regression (Ozcan, 2025). The effect size (f^2) = 0.15 with a statistical power of 0.80, and alpha (α) = 0.05. An effect size of 0.15 suggests a relationship between the variables without having a substantially larger sample size (Ozcan, 2025). A statistical power of 0.80 suggests an 80% probability of being able to reject the null hypothesis and avoid Type II (false negative) error (Daniel & Cross, 2019). Likewise, an alpha of 0.05 indicates the probability of rejecting the null hypothesis when it is true, a Type I error (Daniel & Cross, 2019). I entered four predictors for my four independent variables and eight total predictors for the independent variables and covariates (Ozcan, 2025). My G*Power analysis is attached in Appendix B.

Procedures for Recruitment, Participation, and Data Collection

The recruitment, participation, and data collection procedures were as follows. First, I created worker eligibility criteria on MTurk to include the demographic qualifications to participate in the study. The demographic qualifying information collected included a worker approval rating greater than 98%, indicating that the worker has higher quality and reliability of their HITs, and worker HITs approved at 50,

indicating a worker has consistently produced high-quality work (Amazon Mechanical Turk, 2017). Additionally, the worker must reside in the United States of America. Limiting the eligibility to workers who received 98% approval enabled me to include only workers who met my qualifications. I created the survey in Qualtrics and uploaded the survey link into MTurk for workers to complete. Qualtrics had features that allowed me to create the survey without capturing participants' internet protocol addresses and generate random codes that, when added to MTurk, generated payment to the participants for completing the survey. Workers who met my eligibility requirements were given one week to complete the survey in MTurk. Once the minimum number of surveys to meet the sample size was met, the survey ended.

First, workers were provided with guidelines for informed consent to participate in the study. The guidelines stated the purpose of the study, procedures, the voluntary nature of the study, the risks and benefits of participation, payment details, and the privacy policy (Gjellstad, 2020). Workers were prompted to attest to being provided with guidelines for informed consent and select that they have read and understood the research study and are willing to participate. The survey would take approximately 30 minutes for workers to complete. They were informed of their right to drop out of the study at any time without penalty or consequence. Second, workers were reminded that the demographic data collected by MTurk to create their worker account was not the same demographic information collected for this study, but that MTurk would use it for survey eligibility requirements. Workers were identified only by the unique identifier number automatically generated by MTurk, indicating they completed the survey.

Finally, each worker received a small payment for their participation in the survey. Participation in the study ended with workers completing the survey. The Substance Abuse and Mental Health Services Administration website (www.samhsa.gov) and telephone number (1-800-662-HELP (4357)) were provided after the survey as a resource for any worker in crisis. Resources for specific demographic areas were not provided, as that information was not obtained from workers.

Data was collected from the surveys. Survey responses were available for immediate review after the survey was posted (Amazon Mechanical Turk, 2017). Once the responses were available, the surveys were approved for the workers and paid. I used Microsoft Excel to identify and remove duplicate unique identifiers and to correct formatting errors (Banerjee, 2024). The data were entered into the Statistical Package for the Social Sciences (SPSS) version 30.0 for further analysis.

Instrumentation and Operationalization of Constructs

Instruments that were previously published, validated, and reliable were used in the study to measure the dependent and independent variables. The AAG scale was developed in 2010 by Dr. Linda Machin to test the validity of the concepts in the Range of Response to Loss model but was later used to profile individual grief responses (Machin, 2001). The AAG scale is a nine-item Likert scale with responses from strongly agree to strongly disagree (Machin, 2001). The scale was psychometrically validated to identify vulnerability and cluster responses into categories of overwhelmed, controlled, or resilient (Machin, 2001). Construct validity and discriminative validity were supported by correlations with depression and anxiety (Sim et al., 2014). The responses are

quantifiable, with each response and category assigned a numerical value indicating the grief score. The cluster responses addressed the dependent variable, level of grief, in Research Question 1, Research Question 2, Research Question 3, Research Question 4, and Research Question 5. The independent variable in Research Question 1 was ethnicity. It was defined as the common language, rituals, and preferences for music and foods shared by a particular group and the historical experiences that underline their health status (NIMH, 2001, Chapter 1). Prior mental health diagnosis was the independent variable in Research Question 2 and was defined as a past clinical diagnosis of a mental health condition (American Psychiatric Association, 2024). According to the American Psychological Association (2023), grief is the anguish experienced after a significant loss, usually the death of a loved one. The variable level of grief was operationalized as overwhelmed (>24), controlled (21-23), or resilient (<20) based on scores from the AAG scale (Machin, 2014). The AAG scale was adopted in bereavement services (Machin, 2001) and has recently been used by researchers in investigating bereavement experiences during the COVID-19 pandemic (Harrop et al., 2023). The subscale score was formed by taking the sum of the three items in the subscale (Harrop et al., 2023; Machin, 2001). The index of vulnerability was calculated by adding the overwhelmed, controlled, and resilience scores together (Harrop et al., 2023; Machin, 2001). The results indicated a high vulnerability level in bereaved individuals during the pandemic (Harrop et al., 2023). Dr. Machin (2014) permitted me to use the AAG scale and score sheet in my study and provided me with a user manual. The approval letter is attached in Appendix C and the scale is attached in Appendix D.

The MSPSS was developed in 1988 by Dr. Gregory Zimet to address the subjective assessment of social support adequacy from family, friends, and significant others (Zimet et al., 1988). Social support was defined as the extent to which an individual believed that their needs for support, information, and feedback were fulfilled (Hupcey, 1998; Procidano & Walker-Smith, 1997). Social support was the independent variable in Research Question 3. The MSPSS originated with 24 items and later resolved to 12 after factor analyses were repeated (Zimet et al., 1988). The 12 questions include responses from very strongly disagree to very strongly agree (Zimet et al., 1988). Researchers indicated that MSPSS had good internal consistency with Cronbach's alpha (α), test-retest reliability, and moderate construct validity (Zimet et al., 1988) and was used in quantitative and qualitative research designs (Carlsson et al., 2022). The scale was also used to address Research Question 5 to determine if ethnicity, as previously defined for use in the AAG scale, modifies any association between perceived social support and level of grief. The level of grief was categorized based on the AAG scale as overwhelmed, controlled, or resilient (Machin, 2014). The independent variable, perceived social support, was operationalized as low perceived support (12-35), medium perceived support (36-60), or high perceived support (61-84) based on the scores (Zimet et al., 1988). The MSPSS was recently used by researchers in their investigation of perceived social support for bereaved family members who experienced the loss of a close person from sudden cardiac arrest (Carlsson et al., 2022). The results indicated that social support could not predict the change in outcome variables (Carlsson et al., 2022). Dr. Zimet (1988) permitted me to use the MSPSS scale in my study and provided a score

sheet and guide. The approval letter is attached in Appendix E and the scale is attached in Appendix F.

The Inventory of Complicated Grief was developed in 1995 by Dr. Holly Prigerson and her colleagues to measure symptoms of complicated grief (Ennis et al., 2023). The instrument originated as a 19-item self-report questionnaire with responses on a five-point Likert scale from never (0) to always (1) (Ennis et al., 2023). The instrument was considered a valid and reliable tool to identify individuals who might require further clinical intervention for their grief reactions (Prigerson et al., 1995), and its internal validity was examined employing Cronbach's alpha index (α) (Rodríguez et al., 2021). It was the most used instrument in a recent systematic review of measurement tools operationalized for traumatic grief with reliability coefficients above .90 (Ennis et al., 2023). The scale was updated and validated internationally as the PG-13-Revised scale (Prigerson et al., 2021). The revised scale was intended to address Research Question 4, the type of loss (traumatic or anticipated) as a categorical independent variable on the dependent variable, the level of grief. For this study, the type of loss is defined as either traumatic, indicating that there was a loss of a loved one due to unexpected or violent circumstances (Ennis et al., 2023) or anticipated, indicating that grief may occur before the death happens and is expected by the patient and the family (Johns Hopkins Medicine, 2024). The independent variable, type of loss, was operationalized by a distinction in a score of anticipated (<25) or traumatic (26>). The level of grief was categorized based on the AAG scale as overwhelmed, controlled, or resilient (Machin, 2014). In the systematic review, researchers indicated that there was an increase in deaths

from the COVID-19 pandemic and the opioid crisis, resulting in more Americans experiencing traumatic losses (Ennis et al., 2023). They associated traumatic losses with elevated levels of psychiatric morbidity, such as post-traumatic stress disorder, depression, anxiety, and prolonged grief disorder (PGD) (Ennis et al., 2023). Their results suggested that with a level of significance of $p < 0.05$, higher scores indicated a higher probability of complicated grief (CG) and PGD from a traumatic experience (Ennis et al., 2023). Further, it was the only valid instrument used to evaluate CG in the adult population of Mexicans (Rodríguez et al., 2021). Researchers indicated that, except for Colombia, CG was understudied in Latin America but necessary as mental health professionals required a valid measure to evaluate the COVID-19 impact on grief (Rodríguez et al., 2021). Dr. Prigerson (2021) permitted me to use the PG-13-Revised scale in my study and provided a score sheet. The approval letter is attached in Appendix G and the scale is attached in Appendix H.

Data Analysis Plan

This study's data analysis plan included collecting surveys from men already registered in MTurk as a worker who were at least 18 years of age and whose female partner died. The surveys were completed in MTurk by workers whose identities were undisclosed, and then the surveys were cleaned in Microsoft Excel before being analyzed in SPSS. In Microsoft Excel, the data was checked for survey duplicates based on MTurk's unique identifier, which was given to each worker and scrubbed so that no demographic was traced back to the participant. The data was tested and verified for

accuracy to ensure alignment with SPSS (Banerjee, 2024). The data was exported to SPSS version 30.0 for analysis.

The research questions and hypotheses for this data analysis plan and study are restated below.

RQ1: What is the association between ethnicity and level of grief among men whose female partner died after controlling for age, income, education, and marital status?

H_01 : There is no association between ethnicity and level of grief among men whose female partner died after controlling for age, income, education, and marital status.

H_a1 : There is an association between ethnicity and level of grief among men whose female partner died after controlling for age, income, education, and marital status.

RQ2: What is the association between prior mental health diagnoses (anxiety and depression) and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status?

H_02 : There is no association between prior mental health diagnosis and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status.

H_a2 : There is an association between prior mental health diagnoses and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status.

RQ3: What is the association between perceived social support and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status?

H_03 : There is no association between perceived social support and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status.

H_a3 : There is an association between perceived social support and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status.

RQ4: What is the association between the type of loss and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status?

H_04 : There is no association between the type of loss and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status.

H_a4 : There is an association between the type of loss and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status.

RQ5: Does the ethnicity of men whose female partner died modify any association between perceived social support and the level of grief after controlling for age, income, education, and marital status?

H₀₅: The ethnicity of men whose female partner died does not modify any association between perceived social support and the level of grief after controlling for age, income, education, and marital status.

H_{a5}: The ethnicity of men whose female partner died does modify the association between perceived social support and the level of grief after controlling for age, income, education, and marital status.

Descriptive statistics was the statistical method that I used to organize the data in SPSS before completing the inferential analysis. This information was characteristic of the sample and was necessary to check the variables for violations of the assumptions for linear multiple regression. I used descriptive statistics to test the normality of the dependent variable by reporting the Shapiro-Wilk level of significance. I looked at the mean value to see the distribution and central tendency of the data and looked at the standard deviation to see how much the data points varied from the mean. This allowed me to detect outliers and to see if there were patterns in the data. I used a histogram and a box plot to visually display the measures of central tendency. I made no inferences regarding associations between the data based on the descriptive statistics.

Linear multiple regression was the statistical method used to answer the research questions and to determine if there was an association between the four independent variables and the dependent variable. This method is used so that researchers can predict the outcome variable based on multiple other variables (Daniel & Cross, 2019). The dependent variable must be continuous, but the independent variables may be continuous or categorical. In this study, the dependent variable, level of grief, was a continuous

scale. Also, using linear multiple regression, researchers can assess relationships between two variables while controlling for the effects of potential confounders (Daniel & Cross, 2019). I ran linear multiple regression in SPSS using level of grief as my dependent variable and ethnicity, prior mental health diagnosis, perceived social support, and type of loss as my independent variables. I tested the assumption of normal distribution by using my dependent variable and running descriptive statistics. If the outcome was not statistically significant, I could assume that the dependent variable was normally distributed. Once I ran the analysis, I looked at the model summary chart and the R values. I looked at the adjusted R -squared value if my sample size was less than 85. If my sample size were greater than 85, I would use the R -squared value. Once I added the dependent variable, I added the confounding variables to the independent variable box and looked at the output of the variables in the equation table to see if there was any statistical significance. Age, income, education, and marital status were possible confounders for this study. They each had the potential to influence the level of grief in men whose female partner died but were not the focus of this study. The confounders were adjusted in the analysis. The effect modification would be assessed by stratifying by ethnicity in the regression analysis in SPSS, with perceived social support as the independent variable and level of grief as the dependent variable. Statistically significant results would indicate that the relationship between perceived social support and level of grief was modified by ethnicity. The results would be estimated with 95% confidence that the range of values would contain the actual population parameter.

Threats to Validity

According to Frankfort-Nachmias et al. (2015), external validity is compromised when the results are not generalizable to the population. Internal validity is compromised when changes in the dependent variable may be due to other factors besides changes in the independent variables (Creswell & Creswell, 2017). There are external and internal threats, each of which will be addressed in this study to strengthen its validity and reliability. The potential threat to external validity is self-selection bias, which would skew the study results. I compensated the participants for their time and for completing the survey to mitigate this potential threat. The potential threat to internal validity is maturation, which is time and its effect on participants. To mitigate this potential threat, I was intentional with the survey questions, making them specific to the research hypotheses and maximizing the allotted time without requiring follow-up. The threat to construct validity was mitigated by using measurement tools previously validated in other studies and using variables previously operationalized in other studies.

Ethical Procedures

This study included primary data from three measurement tools AAG, MSPSS, and ICG. Permission to use these tools is provided in the Appendix section. Only the demographic information acquired by this study was asked of participants. Otherwise, participants had MTurk unique identifying numbers indicating they completed the survey. The MTurk unique identifiers were not used for any other purpose than to check for duplicates when scrubbing the data before analysis. The MTurk unique identifiers will be permanently destroyed at the end of five years. Participants used their existing MTurk

accounts to log in to MTurk and complete the survey. Their login information was not captured anywhere in this study. Participants' demographic information is stored securely on a password-protected file and an external hard drive. At the end of five years, the file will be permanently destroyed. Institutional Review Board (IRB) approval was obtained before interaction with the participants. After IRB approval, participants received a description of their expectations for the study. All instructions and surveys were written using language no higher than an eighth-grade reading level. Participants had to read, sign, and agree to participate in the study. I mitigated any foreseeable risk of harm by ensuring informed consent and by providing national websites for support services. Also, participants were reminded of their right to drop out of the study at any time.

Summary

The details in the research design and methodology of this chapter were used to address the five research questions on the level of grief in men whose female partner died. Participants from the online MTurk platform provided informed consent and completed the AAG, MSPSS, and PG-13-Revised surveys inside the application. Based on G*Power, the target sample size was at least 85 participants for analysis using SPSS version 30.0. I used a cross-sectional design for this study and ran descriptive statistics and linear multiple regression analyses. Plans to address internal and external validity threats were considered in addition to ethical considerations to minimize participant risk. Chapter 4 includes the data analysis from SPSS and answers to the research questions outlined in this chapter. Chapter 5 concludes the study by presenting an interpretation of

the findings, discussing implications for future research, and highlighting contributions to social change.

Chapter 4: Results

The purpose of this quantitative study was to explore whether ethnicity, social support, traumatic or anticipated loss, and having a prior mental health diagnosis impacted the level of grief experienced by men whose female partner died. This study was conducted to answer the following RQs and hypotheses:

RQ1: What is the association between ethnicity and level of grief among men whose female partner died after controlling for age, income, education, and marital status?

H_01 : There is no association between ethnicity and level of grief among men whose female partner died after controlling for age, income, education, and marital status.

H_a1 : There is an association between ethnicity and level of grief among men whose female partner died after controlling for age, income, education, and marital status.

RQ2: What is the association between prior mental health diagnoses (anxiety and depression) and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status?

H_02 : There is no association between prior mental health diagnosis and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status.

H_a2 : There is an association between prior mental health diagnoses and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status.

RQ3: What is the association between perceived social support and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status?

H_03 : There is no association between perceived social support and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status.

H_a3 : There is an association between perceived social support and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status.

RQ4: What is the association between the type of loss and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status?

H_04 : There is no association between the type of loss and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status.

H_a4 : There is an association between the type of loss and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status.

RQ5: Does the ethnicity of men whose female partner died modify any association between perceived social support and the level of grief after controlling for age, income, education, and marital status?

H₀5: The ethnicity of men whose female partner died does not modify any association between perceived social support and the level of grief after controlling for age, income, education, and marital status.

H_a5: The ethnicity of men whose female partner died does modify the association between perceived social support and the level of grief after controlling for age, income, education, and marital status.

This chapter includes data analysis. The first section details the data collection process, and the next section provides descriptive and inferential statistics. This chapter concludes with a summation of each research question and answers to those questions.

Data Collection

A survey was created in Qualtrics and uploaded using an anonymous survey link to MTurk. At 11:51 a.m. Eastern Standard Time (8:51 a.m. Pacific Daylight Time (PDT)), male participants who had an approval rate of at least 98%, with HITs approved greater than 50, and who resided in the United States of America were invited to participate in a survey titled “Answer a survey about grief experiences”. The consent form indicated that at least 85 participants were needed for the research study and that participation was voluntary, with participants being able to withdraw from the study at any time with no impact on their MTurk account. The threshold for payment was 200 participants to exceed the minimum of 85 participants needed for statistical analysis. For some unknown reason, Qualtrics captured responses of 205 participants. The survey was posted on MTurk for participants to complete over the duration of two hours and was available online for seven days. The approximate time to complete the survey was 20-30

minutes. The survey submission times were recorded on the MTurk website in PDT. The first survey was submitted at 8:51 a.m. PDT on Sunday, June 29, 2025, and the last survey was submitted at 9 p.m. PDT that same day. The survey questions are attached in Appendix J. There were 205 participants or MTurk workers who completed the survey. After 3 days, all 205 participants' surveys that included the completion code were approved for payment, resulting in compensation of \$2.00 per participant through the MTurk platform. The survey was re-posted on the MTurk website with a different title on Friday, October 3, 2025, at 5:07 pm PDT. The survey was titled "Grief experiences of Black men after the death of their female partners," and it was created to address the independent variable, ethnicity, and to answer the associated research questions. The consent indicated that at least 85 Black male volunteers were needed to complete the research study and that the participants had to have an approval rate of at least 98%, with HITs approved greater than 50, and reside in the United States of America. The survey ended on Tuesday, October 7, 2025, at 7:07 pm PDT. There were 102 MTurk workers who completed the survey, and, as with the initial survey, they were paid 3 days later if they had the completion code. Each participant was paid \$2.00 through the MTurk platform. The MTurk survey invitation is attached in Appendix I.

The initial data cleaning process revealed that of the 205 participants, 66 participants took 1-8 minutes to complete the survey. Those survey responses were filtered and excluded from the study to maintain the integrity and validity of the sample. The remaining 139 participants' responses were still greater than the minimum of 85 required for analysis. The data cleaning process for the re-posted survey revealed that 21

of the 102 participants took 1-8 minutes to complete the survey. The actual survey is included in Appendix J. Those survey responses were excluded from the study to maintain the integrity and validity of the sample. The participants from both surveys were combined, resulting in a total of 208 participants included in the regression analysis. The participants were required to have specific qualifications before they were eligible to take the survey. Their qualifications were that they had an approval rate of at least 98% from requesters for taking surveys and had completed at least 50 surveys at the 98% approval rate. This suggested that the participants who completed my survey were familiar with the platform and with completing surveys. A minimum of 8 minutes was a better indicator of the time it would take a participant with those qualifications to complete the survey. I contacted MTurk support, who confirmed that each participant's response was unique to a worker and that artificial intelligence was not used for the submitted responses. Additionally, in the Qualtrics platform, the settings were enabled to prevent duplicate survey responses from the same internet protocol (IP) address, and a requirement for each question to be answered before proceeding.

Data cleaning also provided that the PG-13-Revised scale was a measurement tool for risk of prolonged grief disorder, but that the survey question where participants self-reported the type of loss of their female partner as either traumatic/unexpected or anticipated/prolonged illness was a more accurate indicator of the type of loss as defined by the participants. The survey question was a direct response from participants, and Table 1 in Chapter 1 showed that the variable type of loss was self-reported. Data was collected using the PG-13-Revised scale; however, it was not used in the linear multiple

regression analysis, as the participants' self-reports of the type of loss were a more accurate indicator of their type of loss. The data from the PG-13-Revised scale measured the risk for prolonged grief disorder, which was outside the scope of this research study.

Age, income, education, and marital status were the control variables obtained from the 208 participants and used in the descriptive analysis. In this model, the age between 18 and 25, income of \$30,000- \$49,999, and educational attainment of a Bachelor's degree were used as the reference groups. There were no participants who identified as being over the age of 65, and no participants who indicated that their income was less than \$30,000 annually. There were no participants who indicated having some high school, high school diploma/GED, or some college as their level of education. These variables were removed from the analysis as they were not associated with any of the participants. Marital status was removed from the control variables because 94% of the participants indicated that they were married at the time of their female partners' deaths, and the other marital status categories combined were less than 6% of the sample when compared to being married. Table 2 presents the frequencies and descriptives of the variables used in the research study analysis.

Table 2*Full Sample Overview: Descriptives for Exposure, Outcome, and Covariate Variables*

Frequencies					
	N	Frequency	Valid %		
Ethnicity	208				
Black, non-Hispanic		63	30.3		
White, non-Hispanic		145	69.7		
Age	208				
18-25		13	6.3		
26-45		184	88.5		
46-65		11	5.3		
Education	208				
Bachelor's degree		158	76.0		
Master's/Advanced degree		50	24.0		
Marital Status	208				
Married		196	94.2		
Income	208				
\$30,000- \$49,999		35	16.8		
\$50,000- \$69,999		89	42.8		
\$70,000- \$89,999		62	29.8		
\$90,000- \$150,000		22	10.6		
Prior diagnoses (anxiety and/or depression)	208				
No		25	12.0		
Yes		185	88.0		
Type of Loss	208				
Traumatic/Unexpected		84	40.4		
Anticipated/Prolonged Illness		124	59.6		
Descriptives					
	N	Mean	Std. dev.	Min	Max
Perceived Social Support (MSPSS)	208	33.22	10.298	13	81
Level of Grief (AAG)	208	20.11	2.73	12	27

N= 208

A test of the normality of the continuous dependent variable, grief, indicated, based on the Shapiro-Wilk test, that the data were not normally distributed. The level of significance was statistically significant ($p < 0.001$). The data were still used for the analysis, with the sample size of 208 exceeding the minimum requirement of 85 participants for linear multiple regression. The confidence interval (CI) was set at 95%, and the alpha level was 0.05, indicating a 5% chance that the study results were due to random chance (Creswell & Creswell, 2018). The p -value of <0.05 would indicate statistical significance in the analysis.

Results

Linear multiple regression was run to test whether an association existed between ethnicity, prior mental health diagnoses of anxiety or depression, perceived social support, and type of loss, and the level of grief in men whose female partner died, after controlling for income, education, and age. Assumption tests of (1) linearity, (2) independence, (3) normality of residuals, (4) homoscedasticity, and (5) multicollinearity were conducted using the linear multiple regression output. The control variables were entered into the analysis as individual models to examine whether they had confounding effects on the dependent and independent variables. The study variables, ethnicity, prior mental health diagnoses, perceived social support, and type of loss, were added to Model 1. Income was added to Model 2, level of education was added to Model 3, and age was added to Model 4. Table 3, the Multiple Regression Model Summary, indicated that at least one of the predictor variables —ethnicity, prior diagnoses, perceived social support, and/or type of loss —was statistically significant ($p < 0.001$) in the overall model. Model

3 revealed that the level of education was statistically significant ($p < 0.001$) in the overall model, and Model 4 showed statistical significance for age in the overall model. Model 4 did not indicate which age category was statistically significant ($p = 0.019$). The statistical significance for each variable in the analysis is presented in Table 4, Linear Multiple Regression Analysis of Ethnicity, Prior Diagnoses, Perceived Social Support, and Type of Loss on Level of Grief.

Table 3

Multiple Regression Model Summary: Overall Fit and Predictive Power

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	F Change	df1	df2	Sig. F Change	Durbin-Watson
1	0.349	0.122	0.105	2.586	0.122	7.048	4	203	<.001	
2	0.368	0.135	0.105	2.586	0.013	1.020	3	200	0.385	
3	0.504	0.254	0.224	2.408	0.119	31.744	1	199	<.001	
4	0.533	0.284	0.247	2.371	0.029	4.049	2	197	0.019	2.180

The Durbin-Watson statistic, as shown in Table 3, was 2.180 for the model. This indicated that the assumption test of independence was not violated and that the variables were not correlated with one another (Duesing, 2022). The R -square value in Model 1 suggested that 12.2% of the variability in the dependent variable was explained by the independent variables. Model 1 was statistically significant with a p -value of < 0.001 . The predictor variables collectively contributed to the prediction of the dependent variable. The R -square value in Model 3 suggested that 25.4% of the variability in the dependent variable was explained by the level of education. The F change was 31.744 after level of education was added as a new predictor to the model. This was the largest F change,

suggesting that adding the level of education was beneficial to the overall model. Model 3 was statistically significant with a p -value of <0.001 . The R -square value in Model 4 suggested that 28.4% of the variability in the dependent variable was explained by the independent variable age. The significance output in Model 2 indicated that income was a non-significant predictor of the level of grief. The p -value was 0.385, which was higher than the alpha of 0.050.

The Analysis of Variance (ANOVA) output indicated statistical significance ($p < 0.001$) for each of the models. This statistical output, which included income, was not revealed in the Multiple Regression Model Summary, suggesting that the amount for income in the R -square was not substantial enough, but that the total change was significant (Ozcan, 2025). Looking then at each variable in the Linear Multiple Regression Analysis Table 4, there was no statistical significance for any of the income levels when examined individually. The data indicated that perceived social support and type of loss were statistically significant in each model. The level of education was statistically significant ($p < 0.001$) when added to Models 3 and 4. Level of education contained the largest Unstandardized regression coefficient (B) of -2.415 when added to the model, suggesting an inverse relationship between level of education and level of grief. The outcome indicated that participants with master's or advanced degrees experience lower levels of grief compared to participants with bachelor's degrees. Age was statistically significant ($p = 0.035$) when added to Model 4, but only for the 26-45 age group.

Table 4

Linear Multiple Regression Analysis of Ethnicity, Prior Diagnoses, Perceived Social Support, and Type of Loss on Level of Grief

Model		B	SE	Beta (β)	t	Sig.	95.0% CI		VIF
							LL	UL	
1	(Constant)	22.844	0.910		25.101	<.001	21.050	24.638	
	Ethnicity	0.311	0.392	0.052	0.794	0.428	-0.461	1.084	1.008
	Prior Diagnoses	0.149	0.624	0.018	0.239	0.812	-1.081	1.379	1.279
	Type of Loss	-1.567	0.397	-0.282	-3.947	<.001	-2.350	-0.784	1.180
	Perceived Social Support	-0.061	0.018	-0.230	-3.347	<.001	-0.097	-0.025	1.088
2	(Constant)	22.341	0.990		22.577	<.001	20.389	24.292	
	Ethnicity	0.384	0.407	0.065	0.944	0.346	-0.418	1.186	1.086
	Prior Diagnoses	0.119	0.659	0.014	0.180	0.857	-1.180	1.417	1.427
	Type of Loss	-1.420	0.422	-0.256	-3.364	<.001	-2.252	-0.588	1.334
	Perceived Social Support	-0.062	0.018	-0.235	-3.412	<.001	-0.098	-0.026	1.098
	Income								
	\$50,000-\$69,999	0.273	0.534	0.049	0.510	0.610	-0.781	1.326	2.174
\$70,000-\$89,999	-0.446	0.582	-0.075	-0.766	0.445	-1.595	0.703	2.208	
\$90,000-\$150,000	0.366	0.757	0.041	0.483	0.629	-1.127	1.858	1.686	
3	(Constant)	22.127	0.922		23.998	<.001	20.308	23.945	
	Ethnicity	0.035	0.384	0.006	0.092	0.926	-0.721	0.792	1.115
	Prior Diagnoses	0.479	0.616	0.057	0.777	0.438	-0.737	1.695	1.442
	Type of Loss	-1.084	0.397	-0.195	-2.728	0.007	-1.868	-0.300	1.365
	Perceived Social Support	-0.042	0.017	-0.159	-2.425	0.016	-0.077	-0.008	1.146
	Income								
	\$50,000-\$69,999	0.546	0.500	0.099	1.092	0.276	-0.440	1.532	2.195
\$70,000-\$89,999	0.256	0.556	0.043	0.461	0.645	-0.841	1.354	2.325	
\$90,000-\$150,000	1.186	0.720	0.134	1.649	0.101	-0.233	2.605	1.758	
Level of Education									
	Master's degree	-2.409	0.428	-0.378	-5.634	<.001	-3.252	-1.566	1.198
4	(Constant)	21.364	0.961		22.233	<.001	19.469	23.259	
	Ethnicity	0.287	0.388	0.048	0.739	0.461	-0.479	1.053	1.178
	Prior Diagnoses	0.706	0.613	0.084	1.152	0.251	-0.502	1.915	1.469
	Type of Loss	-0.903	0.401	-0.162	-2.254	0.025	-1.693	-0.113	1.429
	Perceived Social Support	-0.038	0.018	-0.143	-2.159	0.032	-0.072	-0.003	1.200
	Income								
	\$50,000-\$69,999	0.421	0.498	0.076	0.846	0.398	-0.560	1.403	2.243
\$70,000-\$89,999	0.127	0.555	0.021	0.228	0.820	-0.969	1.222	2.387	
\$90,000-\$150,000	1.367	0.712	0.154	1.919	0.056	-0.038	2.771	1.775	

Level of Education									
	Master's degree*	-2.415	0.431	-0.379	-5.604	<.001	-3.265	-1.565	1.255
Age									
	26-45	-1.506	0.708	-0.176	-2.126	0.035	-2.902	-0.109	1.893
	46-65	0.098	1.025	0.008	0.095	0.924	-1.924	2.120	1.948

Dependent Variable: Level of grief, *Reference category: Bachelor's degree

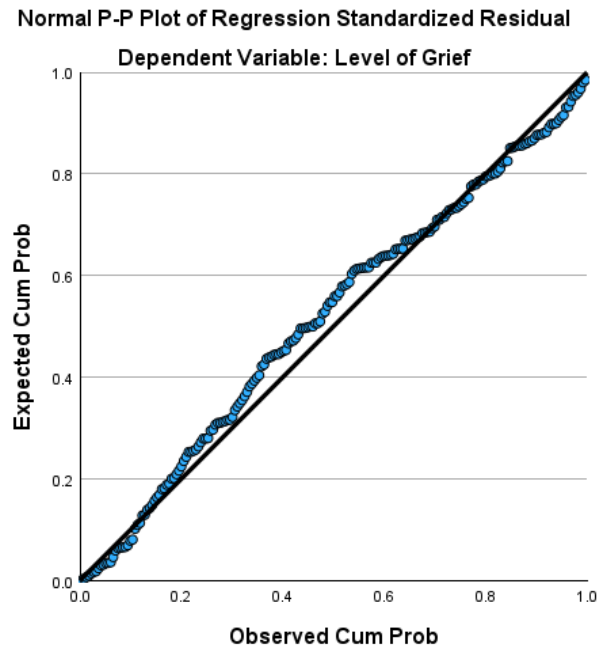
B Unstandardized regression coefficient, SE Standard Error, Beta Standardized regression coefficient, 95% Confidence Interval (CI)

P < 0.050

The Tolerance outputs for each of the variables in Table 4 were >0.1, and all the Variance Inflation Factors (VIF) were less than 10, indicating that the assumption test for multicollinearity was not violated. The remaining assumption tests for linearity and homoscedasticity were provided in Figure 2 and Figure 3, respectively.

Figure 2

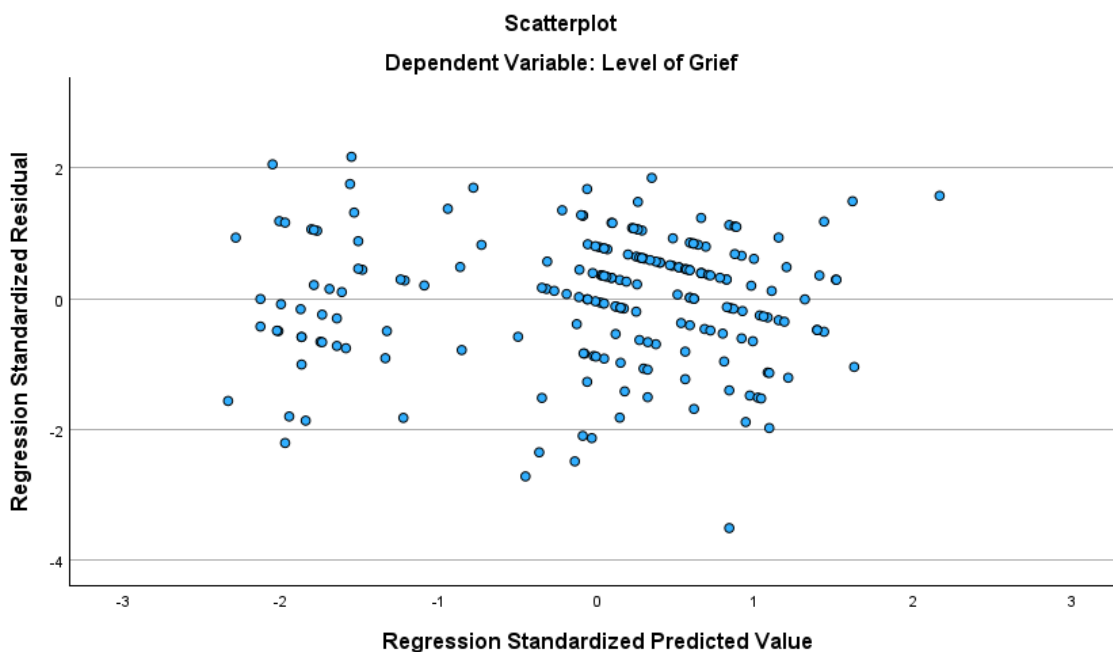
Normal P-P Plot of Regression Standardized Residual



There was a linear relationship between the dependent variable and the independent variables along the line of best fit. This linear relationship indicated that the assumption test for linearity was met. The scatterplot in Figure 3 shows that the values are random, with no cone-shaped pattern or distribution, indicating heteroscedasticity (Laerd Statistics, 2018). The assumption of homoscedasticity was met.

Figure 3

Scatterplot of the Regression Standardized Residual



Research Question 1

What is the association between ethnicity and level of grief among men whose female partner died after controlling for age, income, education, and marital status?

Assessing the frequency of the independent variable, ethnicity, resulted in 145 White men, 63 Black men, and one Hispanic/Latino man present in the sample. There were no participants in the sample who identified as Asian, Pacific Islander, or Native American.

The one participant who identified as Hispanic/Latino was removed from the sample because the single response was not generalizable to the Hispanic/Latino population.

Also, the Hispanic/Latino man was not added to the White men's or Black men's responses as this would not be an accurate representation of the statistical output reflected

by the group. After the removal of the participants who took 1-8 minutes to complete the survey and the one Hispanic/Latino man the sample included 145 participants who identified as White, non-Hispanic/Latino, and 63 participants who identified as Black, non-Hispanic/Latino.

I examined the assumptions for linear multiple regression to ensure the data were a good fit for this analysis. Ethnicity was added to Model 1 along with prior diagnosis (anxiety and depression), perceived social support, and type of loss as predictor variables on the level of grief in men who experienced the death of a female partner. There was no multicollinearity between the predictor variables. In Table 3, Model 1, at least one of the predictor variables was statistically significant. However, Table 4 showed that ethnicity was not statistically significant, as indicated by the p -value of .428 for Model 1, the p -value was .346 in Model 2, the p -value was .926 in Model 3, and the p -value was .461 in Model 4. These values were higher than the alpha of 0.050. The regression coefficient for ethnicity in Model 1 was .311 with a 95% confidence interval (CI) [-.461, 1.084]. The regression coefficient for ethnicity in Model 2 was .384, 95% CI [-.418, 1.186]. The regression coefficient for ethnicity in Model 3 was .035, 95% CI [-.721, 1.695]. The regression coefficient for ethnicity in Model 4 was .287, 95% CI [-.479, 1.053]. These results were provided in Table 4. The R -square for ethnicity and level of grief indicated that ethnicity explained 0.1% of the variability in the level of grief. When income, level of education, and age were added to the models, ethnicity remained non-statistically significant. However, in Model 3, when the level of education was added, ethnicity remained non-statistically significant but also had its smallest Unstandardized Beta when

compared to Models 1, 2, and 4. The change in the level of grief based on ethnicity was even smaller when the level of education was added, and more than a 20% change from the ethnicity coefficient in a simple linear regression.

I ran both unadjusted and adjusted linear regressions to examine the association between ethnicity and level of grief more closely, taking into account the covariates. The results are in Table 5, Unadjusted and Adjusted Linear Regression for the Independent Variable Ethnicity.

Table 5

Unadjusted and Adjusted Linear Regression for the Independent Variable Ethnicity

		B	SE	Beta (β)	t	Sig.	95.0% CI		VIF
							LL	UL	
Unadjusted	(Constant)	20.041	0.227		88.145	<.001	19.593	20.490	
	Ethnicity	0.228	0.413	0.039	0.553	0.581	-0.586	1.043	1.000
Adjusted	(Constant)	21.744	0.745		29.186	<.001	20.275	23.214	
	Ethnicity	0.314	0.394	0.053	0.795	0.428	-0.464	1.091	1.169
	Income								
	\$50,000-\$69,999	0.127	0.497	0.023	0.255	0.799	-0.852	1.106	2.148
	\$70,000-\$89,999	-0.278	0.545	-0.047	-0.511	0.610	-1.352	0.795	2.209
	\$90,000-\$150,000	1.118	0.671	0.126	1.667	0.097	-0.205	2.441	1.516
	Education								
Master's Degree*	-2.738	0.418	-0.429	-6.544	<.001	-3.563	-1.913	1.138	
Age									
	26-45	-1.360	0.716	-0.159	-1.899	0.059	-2.771	0.052	1.862
	46-65	0.802	1.015	0.066	0.791	0.430	-1.198	2.803	1.836

B Unstandardized regression coefficient, SE Standard Error, Beta Standardized regression coefficient,

alpha (α) (0.050), 95% Confidence Interval (CI), $R^2 = .001$, Adjusted $R^2 = -.003$, *Reference category:

Bachelor's degree

Ethnicity was not statistically significant in either the unadjusted ($p = 0.581$) or adjusted ($p = 0.428$) models. The regression coefficient for ethnicity in the unadjusted model was 0.228 with a 95% CI [-0.586, 1.043]. The regression coefficient for ethnicity

in the adjusted model was 0.314 with a 95% CI [-0.464, 1.091]. I calculated the percentage change in the unadjusted and adjusted models. The percentage change in the regression coefficient between the unadjusted and adjusted models for ethnicity was 2.66%. These outcomes indicated that the level of grief in Black men and White men was not statistically significantly different. Based on the results, the null hypothesis that there was no association between ethnicity and the level of grief experienced by men whose female partner died after controlling for age, income, and education, could not be rejected.

Research Question 2

What is the association between prior mental health diagnoses (anxiety and depression) and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status? I examined the assumptions for linear multiple regression to ensure the data were a good fit for this analysis. I conducted the frequency output of participants who responded *no* to a prior mental health diagnosis of anxiety and depression, and those who responded *yes*. Of the 208 participants, 12% indicated no prior mental health diagnoses of anxiety and depression when compared to participants who had prior mental health diagnoses of anxiety and depression. The results were provided in Table 2. Prior mental health diagnosis (anxiety and depression) was added to Model 1 along with ethnicity, perceived social support, and type of loss as predictor variables on the level of grief in men who experienced the death of a female partner. In Table 3, Model 1, at least one of the predictor variables was statistically significant. However, Table 4 showed that prior mental health diagnosis

(anxiety and depression) was not statistically significant as the p -value was .812 for Model 1, the p -value was .857 in Model 2, the p -value was .438 in Model 3, and the p -value was .251 in Model 4. These values were higher than the alpha of 0.050. The regression coefficient for prior mental health diagnosis in Model 1 was .149, 95% CI [-1.081, 1.379]. The regression coefficient for prior mental health diagnosis in Model 2 was .119, 95% CI [-1.180, 1.417]. The regression coefficient for prior mental health diagnosis in Model 3 was .479, 95% CI [-.737, 1.695]. The regression coefficient for prior mental health diagnosis in Model 4 was .706, 95% CI [-.502, 1.915]. These results were provided in Table 4. The R -square for prior mental health diagnosis and level of grief indicated that prior mental health diagnosis explained 0.1% of the variability in the level of grief. When income, level of education, and age were added to the models, prior mental health diagnosis (anxiety and depression) remained non-statistically significant. There were no observed confounding effects based on a simple linear regression and the data output.

I ran both unadjusted and adjusted linear regressions to examine the association between prior mental health diagnosis (anxiety and depression) and level of grief more closely, considering the covariates. The results are in Table 6, Unadjusted and Adjusted Linear Regression for the Independent Variable Prior Mental Health Diagnoses.

Table 6

Unadjusted and Adjusted Linear Regression for the Independent Variable Prior Mental Health Diagnoses

		B	SE	Beta (β)	t	Sig.	95.0% CI		VIF
							LL	UL	
Unadjusted	(Constant)	20.280	0.548		37.018	<.001	19.200	21.360	
	Prior Diagnoses	-0.193	0.584	-0.023	-0.330	0.742	-1.344	0.959	1.000
Adjusted	(Constant)	21.137	0.878		24.065	<.001	19.405	22.869	
	Prior Diagnoses	0.683	0.575	0.081	1.187	0.237	-0.452	1.817	1.251
	Income								
	\$50,000-\$69,999	0.206	0.480	0.037	0.423	0.673	-0.754	1.165	2.070
	\$70,000-\$89,999	-0.129	0.531	-0.022	-0.243	0.808	-1.177	0.919	2.111
	\$90,000-150,000	1.420	0.721	0.160	1.969	0.050	-0.002	2.843	1.758
	Education								
	Master's Degree*	-2.847	0.414	-0.446	-6.881	<.001	-3.662	-2.031	1.117
	Age								
	26-45	-1.343	0.706	-0.157	-1.903	0.058	-2.734	0.049	1.816
	46-65	0.860	1.013	0.071	0.850	0.369	-1.136	2.857	1.835

B Unstandardized regression coefficient, SE Standard Error, Beta Standardized regression coefficient,

alpha (α) (0.050), 95% Confidence Interval (CI), $R^2 = .001$, Adjusted $R^2 = -.004$, *Reference category:

Bachelor's degree

Prior mental health diagnoses were not statistically significant in either the unadjusted ($p=0.742$) or adjusted ($p=0.237$) models. The regression coefficient for prior mental health diagnoses in the unadjusted model was -0.193 with a 95% CI [-1.344, 0.959]. The regression coefficient for prior mental health diagnoses in the adjusted model was 0.683 with a 95% CI [-0.452, 1.817]. I calculated the percentage change in the unadjusted and adjusted models. The percentage change in the regression coefficient between the unadjusted and adjusted models for prior mental health diagnoses was 0.50%. These outcomes indicated that prior mental health diagnoses (anxiety and depression) was not statistically significant. Based on these results, the null hypothesis

that there was no association between prior mental health diagnoses (anxiety and depression) and the level of grief experienced by men whose female partner died after controlling for age, income, and education, could not be rejected.

Research Question 3

What is the association between perceived social support and the level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status? I examined the assumptions for linear multiple regression to ensure the data were a good fit for this analysis. The MSPSS, with permission from Dr. Gregory Zimet (see Appendix E), was used in the linear multiple regression analysis of perceived social support. The MSPSS scores were 12-35 for low perceived support, 36-50 for medium perceived support, and 61-84 for high perceived support (Zimet et al., 1988). I ran descriptive statistics and found the mean value for this data was 33.22 and the standard deviation was 10.30. The descriptive output was reported in Table 2. The mean value was between the 12-35 range on the MSPSS, which indicated low perceived support (Zimet et al., 1988). Perceived social support was added to Model 1 along with ethnicity, prior mental health diagnosis (anxiety and depression), and type of loss as predictor variables on the level of grief in men who experienced the death of a female partner. In Table 3, Model 1, at least one of the predictor variables was statistically significant. Table 4 showed that perceived social support was statistically significant, as indicated by p -values of <0.001 for Model 1, <0.001 for Model 2, <0.016 for Model 3, and 0.032 for Model 4. These values were lower than the alpha of 0.050 . The regression coefficient for perceived social support in Model 1 was -0.061 , 95% CI $[-0.097, -0.025]$.

The regression coefficient for perceived social support in Model 2 was -0.062, 95% CI [-0.098, -0.026]. The regression coefficient for perceived social support in Model 3 was -0.042, 95% CI [-0.077, -0.008]. The regression coefficient for perceived social support in Model 4 was -0.038, 95% CI [-0.072, 0.003]. These results were provided in Table 4. The *R*-square for perceived social support and level of grief indicated that perceived social support explained 4.5% of the variability in the level of grief. When income, level of education, and age were added to the models, perceived social support remained statistically significant. However, when the level of education and age were added to Model 3 and 4, respectively, the level of significance moved closer to 0.050. There was an inverse association between perceived social support and the level of grief. The Unstandardized Beta value represented in Model 1 indicated that for every one-unit increase in perceived social support, the severity of grief decreased by 6.1%. Model 2 indicated that the change went to -0.062 when income was added, and to -0.042 when the level of education was added to Model 3. In Model 4, the value increased to -0.038 when age was added. There were no observed confounding effects based on a simple linear regression and the data output.

I ran both unadjusted and adjusted linear regressions to examine the association between perceived social support and level of grief more closely, considering the covariates. The results are in Table 7, Unadjusted and Adjusted Linear Regression for the Independent Variable Perceived Social Support.

Table 7

Unadjusted and Adjusted Linear Regression for the Independent Variable Perceived Social Support

		B	SE	Beta (β)	t	Sig.	95.0% CI		VIF
							LL	UL	
Unadjusted	(Constant)	21.980	0.628		34.975	<.001	20.741	23.219	
	Perceived Social Support	-0.056	0.018	-.212	-3.113	0.002	-0.092	-0.021	1.000
Adjusted	(Constant)	22.985	0.929		24.754	<.001	21.154	24.816	
	Perceived Social Support	-0.038	0.017	0.144	-2.269	0.024	-0.072	-0.005	1.097
	Income								
	\$50,000-\$69,999	0.293	0.484	0.053	0.606	0.545	-0.661	1.247	2.085
	\$70,000-\$89,999	-0.114	0.526	0.019	-0.216	0.829	-1.150	0.923	2.104
	\$90,000-\$150,000	1.336	0.671	0.151	1.990	0.048	0.012	2.659	1.551
	Education								
	Master's Degree*	-2.612	0.415	-.409	-6.286	<.001	-3.431	-1.793	1.147
	Age								
	26-45	-1.388	0.697	0.163	-1.991	0.048	-2.764	-0.013	1.807
	46-65	0.422	1.019	0.035	0.414	0.679	-1.587	2.431	1.892

B Unstandardized regression coefficient, SE Standard Error, Beta Standardized regression coefficient,

alpha (α) (0.050), 95% Confidence Interval (CI), $R^2=.045$, Adjusted $R^2=.040$, *Reference category:

Bachelor's degree

Perceived social support was statistically significant in both the unadjusted ($p=0.002$) and adjusted ($p=0.024$) models. The regression coefficient for perceived social support in the unadjusted model was -0.056 with a 95% CI [-0.092, -0.021]. The regression coefficient for perceived social support in the adjusted model was -0.038 with a 95% CI [-0.072, -0.005]. I calculated the percentage change in the unadjusted and adjusted models. The percentage change in the regression coefficient between the unadjusted and adjusted models for perceived social support was 4.74%. Based on these results, the null hypothesis was rejected. There was an association between perceived

social support and the level of grief experienced by men whose female partner died after controlling for age, income, and education.

Research Question 4

What is the association between the type of loss and level of grief experienced by men whose female partner died after controlling for age, income, education, and marital status? I examined the assumptions for linear multiple regression to ensure the data were a good fit for this analysis. Participants were asked to respond to a survey question as to whether the loss of their female partner was an anticipated/prolonged illness or traumatic/unexpected. I conducted a frequency output of participants who responded *anticipated/prolonged illness* or *traumatic/unexpected* and found that 59.6% of the participants indicated that their partners' deaths were anticipated/prolonged illness when compared to the participants who indicated that their partners' deaths were traumatic/unexpected. The results were provided in Table 2. The survey responses were used in the linear multiple regression analysis for type of loss. Type of loss was added to Model 1 along with ethnicity, prior mental health diagnosis (anxiety and depression), and perceived social support as predictor variables on the level of grief in men who experienced the death of a female partner. In Table 3, Model 1, at least one of the predictor variables was statistically significant. Table 4 showed that type of loss was statistically significant as the p -value was <0.001 for Model 1, the p -value was <0.001 in Model 2, the p -value was <0.007 in Model 3, and the p -value was 0.025 in Model 4. These values were lower than the alpha of 0.050. The regression coefficient for type of loss in Model 1 was -1.567, 95% CI [-2.350, -0.784]. The regression coefficient for type

of loss in Model 2 was -1.420, 95% CI [-2.252, -0.588]. The regression coefficient for type of loss in Model 3 was -1.084, 95% CI [-1.868, -0.300]. The regression coefficient for type of loss in Model 4 was -0.903, 95% CI [-1.693, 0.113]. These results were provided in Table 4. The *R*-square for the type of loss and the level of grief indicated that the type of loss explained 6.5% of the variability in the level of grief. When income, level of education, and age were added to the models, type of loss remained statistically significant. However, when age was added to Model 4, the level of significance moved closer to 0.050. There was an inverse association between type of loss and the level of grief. The Unstandardized Beta value represented in Model 1 indicated that for a single increase in the level of grief, type of loss changed by -1.567. Model 2 indicated that the change went to -1.420 when income was added, and to -1.084 when the level of education was added to Model 3. In Model 4, the value increased to -0.903 when age was added. The change in the level of grief based on type of loss was more than a 20% change from the type of loss coefficient in a simple linear regression.

I ran both unadjusted and adjusted linear regressions to examine the association between type of loss and level of grief more closely, considering the covariates. The results are in Table 8, Unadjusted and Adjusted Linear Regression for the Independent Variable Type of Loss.

Table 8*Unadjusted and Adjusted Linear Regression for the Independent Variable Type of Loss*

						95.0% CI			
		B	SE	Beta (β)	t	Sig.	LL	UL	VIF
Unadjusted	(Constant)	20.952	0.289		72.465	<.001	20.382	21.522	
	Type of Loss	-1.412	0.374	-0.254	-3.771	<.001	-2.150	-0.674	1.000
Adjusted	(Constant)	21.927	0.750		29.243	<.001	20.449	23.406	
	Type of Loss	-0.677	0.387	-0.122	-1.749	0.082	-1.440	0.086	1.299
	Income								
	\$50,000-\$69,999	0.348	0.492	0.063	0.707	0.480	-0.622	1.317	2.132
	\$70,000-\$89,999	0.026	0.541	0.004	0.048	0.961	-1.040	1.092	2.203
	\$90,000-\$150,000	0.868	0.680	0.098	1.277	0.203	-0.473	2.208	1.575
	Education								
	Master's Degree*	-2.645	0.419	-0.415	-6.319	<.001	-3.470	-1.820	1.152
Age									
	26-45	-1.194	0.680	-0.140	-1.708	0.089	-2.573	0.185	1.798
	46-65	0.574	1.018	0.047	0.564	0.573	-1.434	2.583	1.872

B Unstandardized regression coefficient, SE Standard Error, Beta Standardized regression coefficient,

alpha (α) (0.050), 95% Confidence Interval (CI), $R^2=.065$, Adjusted $R^2=.060$, *Reference category:

Bachelor's degree

Type of loss was statistically significant in the unadjusted ($p < 0.001$) but not in the adjusted ($p = 0.082$) model. The regression coefficient for type of loss in the unadjusted model was -1.412 with a 95% CI [-2.150, -0.674]. The regression coefficient for type of loss in the adjusted model was -0.677 with a 95% CI [-1.440, 0.086]. I calculated the percentage change in the unadjusted and adjusted models. The percentage change in the regression coefficient between the unadjusted and adjusted models for type of loss was 1.60%. The unadjusted outcome indicated that the type of loss was statistically significant, and the 1.60% change indicated that the statistical significance ($p < 0.001$) of education in the adjusted model explained more variation in the level of

grief than the type of loss. Based on these results, the null hypothesis that there was no association between type of loss and the level of grief experienced by men whose female partner died after controlling for age, income, and education, was rejected. There was an association between type of loss and the level of grief experienced by men whose female partner died after controlling for age, income, and education.

Research Question 5

Does the ethnicity of men whose female partner died modify any association between perceived social support and the level of grief after controlling for age, income, education, and marital status? The assumption tests for linear multiple regression were previously met, and the data were found to be a good fit for the analysis. Linear multiple regression was rerun, this time creating an interaction term between ethnicity and perceived social support for Model 1, and adding age, income, and education to the predictor variables in Model 2. A model summary of this regression indicated that 4.7% of the variability in the level of grief was explained by the interaction between ethnicity and perceived social support. The *R*-squared value in Model 2 indicated that 26.6% of the variability in the level of grief was explained by the interaction between ethnicity and perceived social support, as well as age, income, and education. Both Models 1 and 2 were statistically significant overall; however, the coefficients output indicated that the interaction between ethnicity and perceived social support was not statistically significant with the level of grief. The *p*-value was 0.915 in Model 1 and 0.441 in Model 2. These values were higher than the alpha of 0.050. The regression coefficient for the interaction term was 0.004, 95% CI [-0.073, 0.082] in Model 1, and the regression coefficient for the

interaction term was 0.028, 95% CI [-0.043, 0.099] in Model 2. The CI included zero in the upper and lower bounds for both models, indicating uncertainty in the interaction between ethnicity and perceived and the level of grief after controlling for age, income, and education.

I ran both unadjusted and adjusted linear regressions to examine the interaction between ethnicity and perceived social support more closely, considering the covariates, and to investigate the level of grief. The results are in Table 9, Unadjusted and Adjusted Linear Regression for the Interaction Between Ethnicity and Perceived Social Support.

Table 9

Unadjusted and Adjusted Linear Regression for the Interaction Between Ethnicity and Perceived Social Support

		B	SE	Beta (β)	t	Sig.	95.0% CI		VIF
							LL	UL	
Unadjusted	(Constant)	20.115	0.223		90.080	<.001	19.650	20.556	
	Interaction	0.000	0.012	-0.003	-0.040	0.968	-0.023	0.022	1.000
Adjusted	(Constant)	21.721	0.745		29.160	<.001	20.252	23.189	
	Interaction	0.005	0.011	0.033	0.500	0.618	-0.016	0.027	1.135
	Income								
	\$50,000-\$69,999	0.165	0.493	0.030	0.335	0.738	-0.808	1.138	2.117
	\$70,000-\$89,999	-0.238	0.543	-0.040	-0.439	0.661	-1.310	0.833	2.195
	\$90,000-\$150,000	1.116	0.672	0.126	1.661	0.098	-0.209	2.441	1.517
	Education								
Master's Degree*	-2.772	0.415	-0.434	-6.678	<.001	-3.590	-1.954	1.118	
Age									
26-45	-1.311	0.714	-0.154	-1.837	0.068	-2.718	0.096	1.847	
46-65	0.819	1.015	0.067	0.806	0.421	-1.183	2.821	1.834	

B Unstandardized regression coefficient, SE Standard Error, Beta Standardized regression coefficient,

alpha (α) (0.050), 95% Confidence Interval (CI), $R^2=.000$, Adjusted $R^2 =-.005$, *Reference category:

Bachelor's degree

The interaction between ethnicity and perceived social support was not statistically significant in either the unadjusted ($p = 0.968$) or the adjusted ($p = 0.618$) model. The regression coefficient for the interaction term in the unadjusted model was 0.000 with a 95% CI [-0.023, 0.022]. The regression coefficient for the interaction in the adjusted model was 0.005 with a 95% CI [-0.016, 0.027]. I calculated the percentage change in the unadjusted and adjusted models. The percentage change in the regression coefficient between the unadjusted and adjusted models for the interaction was 3.03%. Based on these results, the null hypothesis that the ethnicity of men whose female partner died does not modify any association between perceived social support and the level of grief after controlling for age, income, and education could not be rejected.

Summary

Quantitative cross-sectional research design was used in this study to explore whether ethnicity, prior mental health diagnoses, perceived social support, and traumatic or anticipated loss impacted the level of grief experienced by men whose female partner died. Assumption tests were conducted to run a linear multiple regression, and no violations of the assumptions were found. The models were overall a good fit for analysis. There were 208 participants' responses included for analysis. Data cleaning revealed that the independent variable, marital status, lacked variability to be included in the analysis. Additionally, survey responses from participants who took less than 8 minutes to complete were excluded from the analysis. The variables that were obtained for manipulation were analyzed using linear multiple regression and reported in this chapter. The unadjusted and adjusted measures for each of the independent variables

were provided for Research Questions 1, 2, 3, and 4 and for the interaction between two of the independent variables for Research Question 5. Analysis of variance indicated no statistically significant association between ethnicity and level of grief, and that ethnicity did not modify any association between perceived social support and the level of grief. The results also indicated no statistically significant association between prior mental health diagnoses (anxiety and depression) and level of grief. There was statistical significance between perceived social support and level of grief and type of loss and level of grief experienced by men whose female partner died. There were no observed confounding effects from the covariates age, income, and/or education. In the adjusted model for Research Question 4, after adjusting for education, the association between type of loss and level of grief was attenuated and no longer statistically significant. Based on these results, the null hypotheses could not be rejected for Research Question 1, Research Question 2 and Research Question 5. The null hypothesis was rejected for Research Question 3 and Research Question 4. Interpretation of the findings, limitations of the study, recommendations, and implications for future research are provided in Chapter 5.

Chapter 5: Discussion, Conclusions, and Recommendations

The purpose of this quantitative study was to examine whether ethnicity, prior mental health diagnoses (anxiety and depression), social support, and traumatic or anticipated loss impacted the level of grief experienced by men whose female partner died. A cross-sectional design was chosen to evaluate whether an association existed between the dependent variable (level of grief), the independent variables (ethnicity, prior mental health diagnoses [anxiety and depression], social support, and type of loss), and covariates (age, income, and education) at that specific point in time.

Linear multiple regression was used to analyze the relationship between the independent variables and the dependent variable. The key findings revealed statistical significance between social support and the level of grief, as well as between the type of loss and the level of grief. For every 1-unit increase in perceived social support, the severity of grief decreased by 6.1%. For every 1-unit change in anticipated loss, the severity of grief decreased by 156%. Additionally, the findings indicated that it was not necessary to control age, income, and education variables because a closer look at the unadjusted and adjusted linear regression between the independent and dependent variables revealed that these covariates did not act as confounders. The findings revealed that there was no statistically significant association between ethnicity and level of grief or between prior diagnoses (anxiety and depression) and level of grief in men whose female partner died. The findings also indicated that ethnicity did not modify any association between perceived social support and level of grief in men whose female partner died.

Interpretation of the Findings

The statistically significant findings of the association between social support and the level of grief in men confirm the existing knowledge that there is an inverse relationship between social support and the level of grief, in that an increase in social support is associated with a lower risk of vulnerability to grief (Cacciatore et al., 2021; Chen, 2022; Machin, 2001; Zimet et al., 1988). In the current study, the unadjusted measure for social support using multiple regression indicated that 4.5% of the variance in the level of grief was explained by social support. Additionally, the findings align with previous research, which suggested that social support prevents or moderates damaging responses to stressful events and has buffering effects against grief reactions (Chen, 2022). Chen (2022) found that supportive social networks, including family members, friends, neighbors, and other community members, buffer the effects of traumatic experiences such as widowhood and poor health outcomes. The current study confirms this knowledge, with participants reporting that after the death of their female partner, 57.9% of their social support came from immediate family, 39.2% from extended family, and 1.8% from community members and religious groups. Cacciatore et al. (2021) indicated that in bereavement research, social support was especially important in traumatic grief and that strong social support safeguarded against the negative psychological and physiological responses to stress and was a buffer of protection that aided in coping.

Furthermore, researchers explored social support in grief and found that it served as a mediator for proactive coping, as well as a means to mitigate the intensity and

duration of psychological distress and poor physiological outcomes (Cacciatore et al., 2021). Social support literature suggested that there was more evidence for social support's direct contribution to well-being and to symptomatology/distress than there was for having a buffering effect, and that there was an inverse association between social support and the presence of depression and other post-traumatic disorders in bereaved individuals (Scott et al., 2020; Zimet et al., 1988). The current study did not specifically evaluate social support in individuals with mental health diagnoses to explore whether it is a contributor to well-being or has an inverse association with post-traumatic disorders. However, the statistical findings from this current study indicate that low perceived social support is associated with a severe level of grief, which confirms knowledge of social support and grief reactions in bereaved individuals. As Chen (2022) reported that social support was a protective factor for bereaved single older adults, the current research study did not observe variability in the level of grief and social support in the 46-65 age group. Instead, the 26-45 age group is statistically significant in the regression model. There were no research studies in the extensive literature review that explored the association between social support and the level of grief in men aged 26 to 45, which would provide insight into the statistical significance of the current study.

The statistically significant findings of the association between type of loss and level of grief in men confirm the existing knowledge that bereavement through violent or sudden causes is associated with more severe negative health and well-being outcomes compared to other types of loss and that as was the case in other studies, social support has been found to have a positive impact on well-being after these types of losses (Scott

et al., 2020, p. 265). The findings extend the knowledge based on the literature review in Chapter 2 that there are physical illnesses and poorer general health in the bereaved based on the type of loss and subjective closeness to the person who died (Ningning et al., 2018; Spillane et al., 2017). Previous researchers concluded that people bereaved by suicide were at increased risk of severe adverse physical health and that in cases where there was a prolonged illness, the bereaved individuals were characterized as resilient and had better growth outcomes (Ningning et al., 2018; Boelen et al., 2016). The grief outcome based on the average time since loss and type of loss was previously studied and found to have fewer psychopathological symptoms in bereaved individuals whose partner died more than five years ago from prolonged illness (Ningning et al., 2018). This combined association is not examined in the current study; however, an examination of the type of loss in the current study reveals that 51.5% of participants indicate that their partner loss was anticipated, and 48.5% reported that their partner loss was traumatic. The inverse association between the type of loss and the level of grief indicates that the level of grief in men who experienced the death of a female partner is impacted by both anticipated and traumatic types of losses.

The statistical findings do not confirm previous findings in the literature review, which indicate that grief is not equally distributed among Black and White Americans and that the grief outcomes for Black men are vastly different from those of White men (Wilson & O'Connor, 2022). The peer-reviewed research studies, which found that social and cultural influences impact male grief (Wilson & O'Connor; Tallant, 2021), are unfounded in the current study. Wilson and O'Connor (2022) found that the widowhood

effect was associated with significantly higher odds of subsequent death across all racial-ethnic groups, but that the odds were 1.5 times greater among Black Americans. Similar statistical findings are not found in the current study, as there is no statistical association between ethnicity and level of grief in men whose female partner died. The statistical findings indicate that ethnicity does not modify the association between perceived social support and level of grief, as ethnicity does not have a statistically significant association with level of grief in either the adjusted or unadjusted models. The statistical findings cannot confirm, disconfirm, or extend knowledge from the literature and previous research studies involving the grief experiences of widowed Latino men because only one man who identified as Latino responded to the survey.

The statistical findings cannot confirm previous findings based on the literature review in Chapter 2, which indicated that prior mental health diagnoses impacted the level of grief in men whose female partner died. The previous systematic review and meta-analysis suggested a higher prevalence of both anxiety disorders and depression in widowed people than in the general population, but in research studies that used self-reporting of depression, the prevalence doubled when compared to clinical assessments (Blanner Kristiansen et al., 2019). Although the current study does not find a statistically significant association between prior mental health diagnosis (anxiety and depression) and the level of grief in men, the high prevalence of prior mental health diagnosis reported by participants is aligned with the systematic review and meta-analysis. The current study indicates that 88% of the participants reported having a prior diagnosis of anxiety and depression. According to Blanner Kristiansen et al. (2019), possible

considerations for the increase in anxiety and depression in widowhood may be attributed to loneliness and complicated grief as risk factors for depression. Another consideration is that because women in the general population have a higher prevalence of depression than men, the relative risk of depression in widowhood is higher in men than in women (Blanner Kristiansen et al., 2019).

The SEM serves as the theoretical framework for this study, as it provides a framework for exploring the interconnected systems and levels within the grieving process. The framework was previously used in grief studies on men and has been conceptualized and operationalized since the 1980s (Crawford, 2020; McLeroy et al., 1988). In the current study, there is a statistically significant association between social support and the level of grief in men whose female partner died. Participants responded to a survey question on which group they received support from through their grief process. A little more than half (57.9%) of the participants indicate that their support is from their immediate family. Another 39.2% indicate that their support is from their extended family, and 1.8% indicated that their support is from their community and religious groups. There are 1.2% of the participants who respond that their support comes from no one. These findings align with previous studies on men's mourning experiences and the use of the SEM framework. The system levels in the SEM are interconnected relationships that researchers contend as affecting human development and mourning experiences (Martinez-Esquivel et al., 2024). The system levels are interconnected, rather than hierarchical, suggesting that all levels of the system can have a positive or negative impact on an individual (Crawford, 2020). The interconnectivity of the system levels

reveals variability in the relationships in the current study, indicating that each level has an impact on the grief process, regardless of the magnitude of the relationship between the participant and the individuals in the groups or of the interpersonal challenges that exist at the microsystem and mesosystem levels (Barros-Lane, 2024). The current study's findings utilize the SEM framework, indicating an association between social support and the level of grief, and suggesting that social support can exist at any level within the overall system.

Limitations of the Study

One of the limitations of this study is the limited responses from men who identified as Hispanic/Latino, and no responses from men who identified as Asian, Native American, or Pacific Islander. This limits the generalizability of the study results to men who identify as Black non-Hispanic/Latino or White non-Hispanic/Latino only. Additionally, limiting the study to only surveys makes it challenging to understand the motivations behind the responses and why only certain groups of men participated. It also makes it challenging to understand why men who did not identify as Black responded to the reposted survey that requested responses specifically from Black male participants.

A cross-sectional design does not permit follow-up with participants, thus limiting the ability to make cause-and-effect relationships. It is unnecessary in this study to establish cause-and-effect because the outcome, the death of a female partner, already existed. It is necessary, however, to consider self-selection bias as a limitation, as participants chose to participate in the survey, thereby creating results that may not be

representative of the broader population. These limitations should be considered when interpreting the results.

Recommendations

The literature review and the limitations of the current study inform the recommendations for future research. There is a paucity of information on grief in men whose female partner died, and the information that exists was on grief phenomena rather than empirical findings. Further studies on anticipated and traumatic loss experienced by men whose female partner died may be valuable in clarifying similar patterns in the inverse relationship that exists between anticipated and traumatic loss and the level of grief and investigating adverse grief reactions. The AAG and MSPSS measurement scales were valid and reliable in previous studies on grief in men and may be a consideration for future research that seeks quantitative analyses and findings. Additionally, a scale that measures the grief experience in men and includes quantitative analysis to examine associations is warranted. Using such analyses would enable rigorous, large-scale studies that measure associations between variables and inform the researcher of the grief experience.

Previous research on grief in men lacks representative samples that include larger numbers of ethnically diverse men. An ethnically diverse sample would provide the researcher with insight into the social and cultural considerations of grief that are difficult to quantify but equally important in the experience. The current study includes groups of Black and White men; however, there are insufficient responses from Hispanic/Latino, Asian, Native American, and Pacific Island men included in the analysis. Although there

is no statistically significant association between ethnicity and level of grief in this study, further studies on grief in men should include ethnically diverse participants to ensure generalizability of the findings to the broader population of grief in men whose female partner died.

Implications

The findings in this study have potential implications for positive social change at the individual, family, and societal levels. At the individual level, the findings may inform men of factors that could affect their level of grief when experiencing the death of a female partner. The findings specifically mention the inverse effects of the type of loss and grief in men and the protective factor of social support at any level. These details may provide insight into social support grounded in the interconnected systems of the SEM framework theory and may encourage men to seek social support at any level to help them cope with grief and better manage their relationships with family and friends. At the family level, the findings may inform families of factors like social support that could affect men who experience the death of a female partner and influence family relationships or dynamics when providing social support if a man in their family experiences the death of their partner. At the societal level, the current findings may add to the literature on social support and on grief severity and present factors that may influence the level of grief in men whose female partner died. It may positively impact social determinants of health by normalizing men's ability to openly seek social support after experiencing the death of a female partner, improving their mental health and overall well-being, and reducing their cases of social isolation and grief severity.

The SEM has been employed as a theoretical framework in research studies on social support and grief. The SEM has positive implications for social change as it may add to the existing literature on the interconnected relationships that could affect the level of grief in men whose female partner died. This study highlights the interconnected relationships of the SEM, which, for men who experience the death of a female partner, may be a factor in their level of grief. The framework emphasizes the importance of interventions directed at challenging interpersonal, organizational, community, and public policy factors to support appropriate changes in the individual (McLeroy et al., 1988).

Previous research on grief explored grief phenomena rather than evaluating correlations or associations. The quantitative methodology of the current study has implications for extending the research on operationalizing social support and the grief process, which, based on the literature review, is lacking. This study highlights the importance of using quantitative analyses to further explore associations of factors that may impact the level of grief in men whose female partner died and fills a gap in the existing literature. Public health practitioners may promote social change by exploring factors like social support and types of loss that affect how men respond to the grief of losing a female partner, thereby fostering more targeted grief support that considers the impact of gender on mourning.

Conclusion

Grief, as a universal term, has been defined as the emotional, psychological, and physical state following a loss and described as an experience that individuals who form

intimate social relationships will live through following the death of a loved one (Tallant, 2020). Although this term has been considered universal, there has been a lack of research on grief in men and limited studies that have used quantitative analyses to explore grief and factors affecting grief. This current research provides quantitative findings of the statistically significant association between social support and the level of grief in men whose female partner died, and the type of loss and the level of grief in men whose female partner died.

This current research on factors affecting the level of grief in men whose female partner died reveals that social support and type of loss impact the level of grief in men and that social support, type of loss, and level of grief can be operationalized in quantitative research to present findings that fill a gap in the existing literature. Future research should involve the operationalization of grief that can be used in quantitative studies to explore whether statistically significant findings exist across ethnically diverse groups of men.

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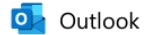
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Appendix A: Permission From Simply Psychology

4/19/25, 5:19 PM

Mail - Keona Lee - Outlook



Re: Request for Permission to Use Image

From Saul Mcleod <saulmcleod@simplypsychology.org>

Date Thu 12/19/2024 11:27 AM

To Keona Lee <keona.lee7@waldenu.edu>

You don't often get email from saulmcleod@simplypsychology.org. [Learn why this is important](#)

Hi Keona,

You have permission, but please reference the original article.

Saul

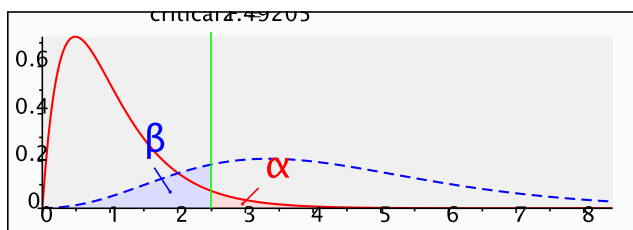
On Tue, 17 Dec 2024, 18:18 Keona Lee, <keona.lee7@waldenu.edu> wrote:

Good afternoon,

I am writing my doctoral dissertation and found an image on your website that I would like to ask permission to use inclusive of a citation to reference your Associate Editor, Olivia Guy-Evans as the source. The image is Bronfenbrenner's ecological systems theory model that you have in color. The reference on the website indicates that it was developed by Simple Psychology.

I would like to use the image one time in Chapter 2 of my dissertation to explain the model. Thank you.

Appendix B: G* Power Analysis



F tests - Linear multiple regression: Fixed model, R^2 increase

Analysis: A priori: Compute required sample size

Input: Effect size f^2 = 0.15

α err prob = 0.05

Power ($1-\beta$ err prob) = 0.80

Number of tested predictors = 4

Total number of predictors = 8

Output: Noncentrality parameter λ = 12.7500000

Critical F = 2.4920493

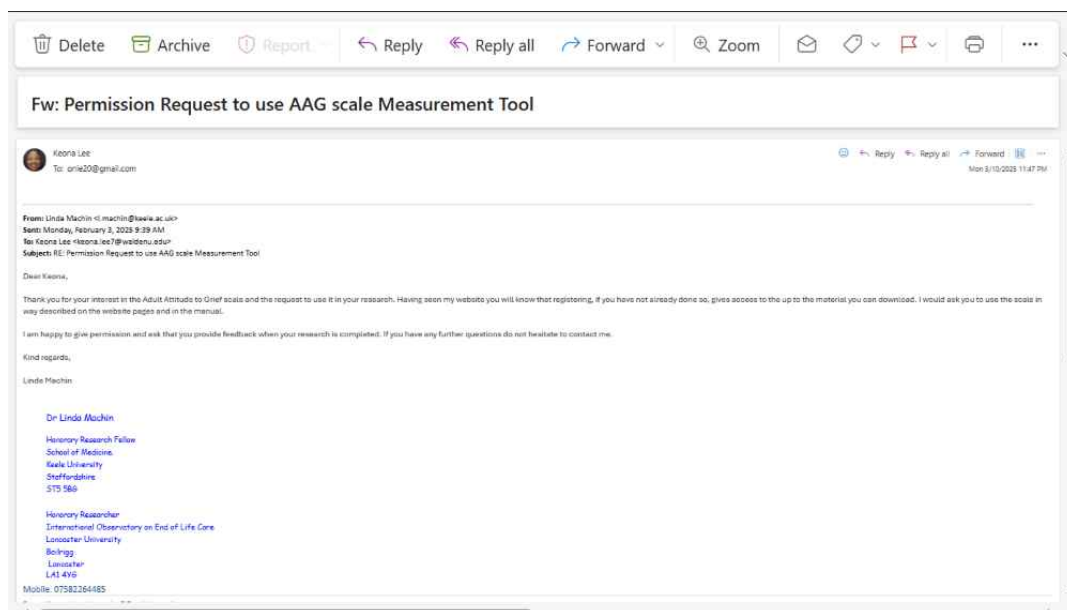
Numerator df = 4

Denominator df = 76

Total sample size = 85

Actual power = 0.8017037

Appendix C: Permission to Use Adult Attitude to Grief Scale



The screenshot shows an email client interface. At the top, there is a toolbar with icons for Delete, Archive, Report, Reply, Reply all, Forward, Zoom, and other actions. Below the toolbar, the email subject is "Fw: Permission Request to use AAG scale Measurement Tool". The sender is identified as Keona Lee (keona.lee7@webdu.edu) with a profile picture. The recipient is orlie20@gmail.com. The email content is as follows:

From: Linda Machin <l.machin@keele.ac.uk>
Sent: Monday, February 3, 2020 9:29 AM
To: Keona Lee <keona.lee7@webdu.edu>
Subject: RE: Permission Request to use AAG scale Measurement Tool

Dear Keona,

Thank you for your interest in the Adult Attitude to Grief scale and the request to use it in your research. Having seen my website you will know that registering, if you have not already done so, gives access to the up to the material you can download. I would ask you to use the scale in any described on the website pages and in the manual.

I am happy to give permission and ask that you provide feedback when your research is completed. If you have any further questions do not hesitate to contact me.

Kind regards,
Linda Machin

Dr Linda Machin
Honorary Research Fellow
School of Medicine,
Keele University
Staffordshire
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Appendix D: Adult Attitude to Grief Scale

Adult Attitude to Grief scale

The statements in this scale represent a range of reactions and experiences many people have in bereavement. You are being asked to complete this form to help us understand what grief is like for you and how we may best help you.

Indicate with a cross (X) how far you agree or disagree with each statement – based on your feelings and thoughts today.

Adult Attitude to Grief scale © Linda Machin 2001	Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
1. I feel able to face the pain which comes with loss.					
2. For me, it is difficult to switch off thoughts about the person I have lost.					
3. I feel very aware of my inner strength when faced with grief.					
4. I believe that I must be brave in the face of loss.					
5. I feel that I will always carry the pain of grief with me.					
6. For me, it is important to keep my grief under control.					
7. Life has less meaning for me after this loss.					
8. For me, it's best to avoid thinking about my loss. *					
9. It may not always feel like it but I do believe that I will come through this experience of grief.					

*Modified 2023

Appendix E: Permission to Use Multidimensional Scale of Perceived Social Support

The screenshot displays an email client interface. At the top, there is a toolbar with icons for Delete, Archive, Report, Reply, Reply all, Forward, Zoom, and other actions. The email title is "Fw: [External] Permission Request to use MSPSS scale Measurement Tool". Below the title, there are four attachment icons: "0533 Zim...1988.pdf", "0732 Zim...1998.pdf", "MSPSS R...ences.pdf", and "MSPSS...scoring.pdf".

The email header shows it is from Keona Lee (keona.lee@hawaii.edu) to Gregory D. Zimet (gzimet@uad.edu). The email body contains the following text:

From: Zimet, Gregory D. (gzimet@uad.edu)
 Sent: Friday, February 21, 2025 6:29 PM
 To: Keona Lee <keona.lee@hawaii.edu>
 Subject: RE: [External] Permission Request to use MSPSS scale Measurement Tool

Dear Ms. Lee,

You have my permission to use the Multidimensional Scale of Perceived Social Support (MSPSS) in your research. I have attached a copy of the scale (with scoring information on the 2nd page), a document listing several of the articles that have reported on the reliability and validity of the MSPSS, and a chapter that I wrote about the scale. In addition, the original 1988 article is attached.

I hope your research goes well.

Best regards,
 Gregory Zimet

Gregory D. Zimet, PhD, FSAHM
 Professor Emeritus of Psychiatry
 Director of Adolescent Medicine
 Hawaii University School of Medicine
 Hahaione
gzimet@uad.edu

Appendix F: Multidimensional Scale of Perceived Social Support











Multidimensional Scale of Perceived Social Support

Instructions: We are interested in how you feel about the following statements. Read each statement carefully. Indicate how you feel about each statement.




Circle the "1" if you **Very Strongly Disagree**
 Circle the "2" if you **Strongly Disagree**
 Circle the "3" if you **Mildly Disagree**
 Circle the "4" if you are **Neutral**
 Circle the "5" if you **Mildly Agree**
 Circle the "6" if you **Strongly Agree**
 Circle the "7" if you **Very Strongly Agree**

	Very Strongly Disagree	Strongly Disagree	Mildly Disagree	Neutral	Mildly Agree	Strongly Agree	Very Strongly Agree
1. There is a special person who is around when I am in need.	1	2	3	4	5	6	7
2. There is a special person with whom I can share joys and sorrows.	1	2	3	4	5	6	7
3. My family really tries to help me.	1	2	3	4	5	6	7
4. I get the emotional help & support I need from my family.	1	2	3	4	5	6	7
5. I have a special person who is a real source of comfort to me.	1	2	3	4	5	6	7
6. My friends really try to help me.	1	2	3	4	5	6	7
7. I can count on my friends when things go wrong.	1	2	3	4	5	6	7
8. I can talk about my problems with my family.	1	2	3	4	5	6	7
9. I have friends with whom I can share my joys and sorrows.	1	2	3	4	5	6	7
10. There is a special person in my life who cares about my feelings.	1	2	3	4	5	6	7
11. My family is willing to help me make decisions.	1	2	3	4	5	6	7
12. I can talk about my problems with my friends.	1	2	3	4	5	6	7

Appendix G: Permission to Use Prolonged Grief Disorder (PG-13 Revised) Scale

 Delete
  Archive
  Report
  Reply
  Reply all
  Forward
  Zoom
 



Fw: Permission Request to use ICG scale Measurement Tool



  pg-13-r.pdf
  Prigers...-13-R.pdf

From: Holly G Prigerson <hgp2001@med.cornell.edu>
Sent: Saturday, February 15, 2025 3:34 PM
To: Keona Lee <keona.lee7@usf.edu>
Subject: FW: Permission Request to use ICG scale Measurement tool

Dear Keona, Yes of course you have my permission to use the ICG but it has been updated and validated internationally as the PG-13-R please see attached.

Best,

Holly

Holly G. Prigerson, PhD
 Endowed Professor of Diagnostics in Radiology
 Professor of Sociology in Medicine
 Professor of Sociology in Medicine
 Director, Cornell Center for Research on End of Life Care
 **Weill Cornell Medicine**  **NewYork Presbyterian**

Leontine House (LH22), Suite 8
 420 E 10th Street, NYC, NY 10021
 Email: hgp2001@med.cornell.edu
 Phone (NYC): (646) 962-3982
 Phone (NYC): (646) 962-3334
hgp2001@med.cornell.edu
<http://medaffairs.cornell.edu/>

From: Keona Lee <keona.lee7@usf.edu>
Sent: Saturday, February 15, 2025 1:53 PM
To: Holly G Prigerson <hgp2001@med.cornell.edu>
Subject: [EXTERNAL] Re: Permission Request to use ICG scale Measurement Tool

Appendix H: Prolonged Grief Disorder (PG-13 Revised) Scale

Prolonged Grief Disorder (PG-13-Revised)

Holly G. Prigerson, Ph.D., Jiehui Xu, M.S., Paul K. Maciejewski, Ph.D.

Q1. have you lost someone significant to you? Yes / No

Q2. how many months has it been since your significant other died? _____ Months.

For each item below, please indicate how you currently feel?

Since the death, or as a result of the death...	Not at all	Slightly	Somewhat	Quite a bit	Overwhelmingly
Q3. do you feel yourself longing or yearning for the person who died?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q4. do you have trouble doing the things you normally do because you are thinking so much about the person who died?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q5. do you feel confused about your role in life or feel like you don't know who you are any more (i.e., feeling like that a part of you has died)?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q6. do you have trouble believing that the person who died is really gone?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q7. do you avoid reminders that the person who died is really gone?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q8. do you feel emotional pain (e.g., anger, bitterness, sorrow) related to the death??	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q9. do you feel that you have trouble re-engaging in life (e.g., problems engaging with friends, pursuing interests, planning for the future)?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q10. do you feel emotionally numb or detached from others?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q11. do you feel that life is meaningless without the person who died?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Q12. do you feel alone or lonely without the deceased?	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Q13. have the symptoms above caused significant impairment in social, occupational, or other important areas of functioning? Yes / NoYour summed score is 10 . **Interpret**

Appendix I: MTurk Participant Invitations

Answer a survey about your grief experiences

Requester: KCL Epidoc Reward: \$2.00 per task Tasks available: 0 Duration: 1 Hours

Qualifications Required: HIT Approval Rate (%) for all Requesters' HITs greater than 98 , Number of HITs Approved greater than 50 , Gender - Male equal to true , Location is US

Survey Link Instructions (Click to collapse)

You are invited to take part in a research study about factors affecting the level of grief in men whose female partner died in the United States. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study seeks at least 85 volunteers who are:

- Men over the age of 18
- Who reside in the United States of America
- Who experienced the death of their female partner and are
- Currently registered as a worker on Amazon Mechanical Turk

This study is being conducted by a researcher named Keona Lee, who is a doctoral student at Walden University.

Study Purpose:

The purpose of this study is to determine whether ethnicity, social support, traumatic or anticipated loss, and having a prior mental health diagnosis affect the level of grief in men.

Here are some sample questions:

Which of the following best describes your age?

- 18-25
- 26-45

Answer a survey about your grief experiences

Requester: KCL Epidoc Reward: \$2.00 per task Tasks available: 0 Duration: 1 Hours

Qualifications Required: HIT Approval Rate (%) for all Requesters' HITs greater than 98 , Number of HITs Approved greater than 50 , Gender - Male equal to true , Location is US

Make one selection for each statement. There are no right or wrong answers.

For me, it is difficult to switch off thoughts of the person I have lost.

Strongly Agree (1) Agree (2) Neither Agree nor Disagree (3) Disagree (4) Strongly Disagree (5)

Which group of people provided you the most grief support?

- No one
- Immediate family and friends
- Extended family and friends
- Community and religious group

Do you feel confused about your role in life or feel like you don't know who you are anymore?

Not at all (1) Slightly (2) Somewhat (3) Quite a bit (4) Overwhelmingly (5)

Make a selection based on the support after your partner died. There are no right or wrong answers.

There is a person who is around when I am in need

Very Strongly Agree (1) Strongly Agree (2) Mildly Agree (3) Neutral (4) Mildly Disagree (5) Strongly Disagree (6) Very Strongly Disagree (7)

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Voluntary Nature of the Study:

Research should only be done with those who freely volunteer. So everyone involved will respect your decision to join or not. Your Amazon Mechanical Turk (MTurk) account will not be impacted based on whether you volunteer or not. If you decide to join the study now, you can still change your mind later. You may stop at any time. The online survey responses will be collected by the researcher. Participants can at any time opt not to continue with the survey and not have their responses recorded.

Risks and Benefits of Being in the Study:

Being in this study could involve some risk of minor discomforts that can be encountered in daily life, such as sharing sensitive information. With the protections in place, this study would pose minimal risk to your well-being. If distress arises, support can be obtained via www.FindTreatment.gov or 1-800-662-HELP (4357).

This study offers no direct benefits to individual volunteers. The aim of this study is to benefit society by helping men acknowledge their grief and seek social support to help them deal with their grief and be better able to deal with family and friends. Results of this study will be automatically published online in [Scholarworks](#) (a publication of Walden University doctoral research), which can be viewed free of charge. Participants can create an anonymous email to which the study results will be emailed at the conclusion of the study.

Payment:

Participants who meet the inclusion requirements and complete the survey will receive \$2.00 compensation sent directly to their MTurk account. Participants will enter their completion code. The completion code is a random set of alpha-numeric characters that must be typed into the survey. The payment will process automatically once the survey is completed and the code is validated.

Privacy:

The researcher is required to protect your privacy. Your identity will be kept anonymous, within the limits of the law. The researcher will not ask for your name at any time or link

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Contacts and Questions:

You can ask questions of the researcher by email at keona.lee7@waldenu.edu. If you want to talk privately about your rights as a participant or any negative parts of the study, you can call Walden University's Research Participant Advocate at 612-312-1210. Walden University's approval number for this study is **IRB will enter approval number here**. It expires on **IRB will enter expiration date**. You might wish to retain this consent form for your records. You may ask the researcher or Walden University for a copy at any time using the contact info above.

Obtaining Your Consent

The survey will take approximately 20-30 minutes to complete. If you feel you understand the study and wish to volunteer, please indicate your consent by clicking the link below to complete the survey. At the end of the survey, you will receive a code to paste into the box below to receive credit for taking our survey.

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Survey link:

Provide the survey code here:

1. How to start your task will show to you available task in the field.

1 Enter Properties 2 Design Layout 3 Preview and Finish

Answer a survey about your grief experience after the death of your female spouse/partner

Requester: KCL Epidoc Reward: \$2.00 per task Tasks available: 0 Duration: 1 Hour

Qualifications Required: HIT Approval Rate (%) for all Requesters' HITs greater than 98 , Number of HITs Approved greater than 50 , Gender - Male equal to true , Location is US , Ethnic Diversity has been granted

Survey Link Instructions (Click to collapse)

You are invited to take part in a research study about factors affecting the level of grief in men whose female partner died in the United States. This form is part of a process called "informed consent" to allow you to understand this study before deciding whether to take part.

This study seeks at least **75 Black male volunteers** who are:

- Men over the age of 18
- Who reside in the United States of America
- Who experienced the death of their female partner and are
- Currently registered as a worker on Amazon Mechanical Turk

This study is being conducted by a researcher named Keona Lee, who is a doctoral student at Walden University.

Study Purpose:

The purpose of this study is to determine whether ethnicity, social support, traumatic or anticipated loss, and having a prior mental health diagnosis affect the level of grief in men.

Here are some sample questions:

Which of the following best describes your age?

Here are some sample questions:

Which of the following best describes your age?

18-25

26-45

46-65

66 or older

Make one selection for each statement. There are no right or wrong answers.

For me, it is difficult to switch off thoughts of the person I have lost.

Strongly Agree (1) Agree (2) Neither Agree nor Disagree (3) Disagree (4) Strongly Disagree (5)

Which group of people provided you the most grief support?

No one

Immediate family and friends

Extended family and friends

Community and religious group

o Community and religious group

Do you feel confused about your role in life or feel like you don't know who you are anymore?

Not at all (1) Slightly (2) Somewhat (3) Quite a bit (4) Overwhelmingly (5)

Make a selection based on the support after your partner died. There are no right or wrong answers.

There is a person who is around when I am in need

Very Strongly Agree (1) Strongly Agree (2) Mildly Agree (3) Neutral (4) Mildly Disagree (5) Strongly Disagree (6) Very Strongly Disagree (7)

Voluntary Nature of the Study:

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Being in this study could involve some risk of minor discomforts that can be encountered in daily life, such as sharing sensitive information. Also, questions related to the death of a female partner, trauma, or mental health may evoke strong emotions and feelings, and reflecting on personal experiences may lead to some substantial psychological discomfort, be upsetting, and/or be emotionally triggering. Support resources are available if needed, and you may withdraw from the study at any time with no impact on your MTurk account. Your responses to the survey will remain anonymous. With the protections in place, this study would pose minimal risk to your well-being. If distress arises, support can be obtained via www.FindTreatment.gov or 1-800-662-HELP (4357).

This study offers no direct benefits to individual volunteers. The aim of this study is to benefit society by exploring whether ethnicity, social support, traumatic or anticipated loss, and having a prior mental health diagnosis impact the level of grief experienced by men whose female partner died. Results of this study will be automatically published online in Scholarworks (a publication of Walden University doctoral research), which can be viewed free of charge. Participants can create an anonymous email to which the study results will be emailed at the conclusion of the study.

Payment:

ONLY participants who MEET the inclusion requirements and complete the survey will receive \$2.00 compensation sent directly to their MTurk account. Participants will enter their completion code. The completion code is a random set of alpha-numeric characters that must be typed into the survey. The payment will process automatically once the survey is completed and the code is validated.

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Finish

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Contacts and Questions:

You can ask questions of the researcher by email at keona.lee7@waldenu.edu. If you want to talk privately about your rights as a participant or any negative parts of the study, you can call Walden University's Research Participant Advocate at 612-312-1210. Walden University's approval number for this study is 06-27-25-0365934. It expires on **June 26, 2026**. You might wish to retain this consent form for your records. You may ask the researcher or Walden University for a copy at any time using the contact info above.

Obtaining Your Consent

The survey will take approximately 20-30 minutes to complete. If you feel you understand the study and wish to volunteer, please indicate your consent by clicking the link below to complete the survey. At the end of the survey, you will receive a code to paste into the box below to receive credit for taking our survey.

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Survey link: https://qualtricsxm1gk4wvjtz.qualtrics.com/jfe/form/SV_8oJpQZC0i0G5hiu

Provide the survey code here:

Appendix J: Survey, Grief Experienced by Black Men Whose Female Partner Died

1. Which of the following describes your age?
 - 18-25
 - 26-45
 - 46-65
 - 66 or older
2. Which of the following describes you?
 - Black, non-Hispanic/Latino
 - Hispanic/Latino
 - White, non-Hispanic/Latino
 - Asian, Pacific Islander, Native American
3. Which best describes your total annual income?
 - Under \$30,000
 - \$30,000- \$49,999
 - \$50,000- \$69,999
 - \$70,000- \$89,999
 - \$90,000- \$150,000
 - Over \$150,000
4. What is the highest level of education you have completed?
 - Some high school, no diploma
 - High school diploma or GED
 - Some college, no degree
 - Bachelor's (4-year) degree
 - Master's/Advanced degree
5. Have you been previously diagnosed with anxiety and/or depression?
 - No
 - Yes
6. Have you experienced the death of a female partner?
 - No
 - Yes
7. How did your female partner die?
 - Anticipated/Prolonged illness
 - Traumatic/Unexpectedly
8. What was your marital status at the time your female partner died?
 - Never married
 - Married
 - Separated
 - Divorced
9. How long ago did your female partner die?

- 1-2 years ago
- 3-5 years ago
- 6-10 years ago
- Over 10 years ago

10. Make one selection for each statement. There are no right or wrong answers.

Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
For me, it is difficult to switch off thoughts of the person I have lost.				
Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
I feel that I will always carry the pain of grief with me.				
Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
Life has less meaning for me after this loss.				
Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
I believe that I must be brave in the face of loss.				
Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
For me, it is important to keep my grief under control.				
Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
For me, it is best to avoid thinking about my loss.				
Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
I feel able to face the pain that comes with loss.				
Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
I am very aware of my inner strength when faced with grief.				
Strongly Agree	Agree	Neither Agree or Disagree	Disagree	Strongly Disagree
It may not always feel like it but I do believe I will come through this experience of grief.				

11. Which group of people provided you the most grief support?

- No one
- Immediate family and friends
- Extended family and friends
- Community and religious group

12. For each item below, please indicate how you currently feel.

Not at all	Slightly	Somewhat	Quite a bit	Overwhelmingly
Do you feel yourself longing or yearning for the person who died?				
Do you have trouble doing the things you normally do because you are thinking so much about the person who died?				
Do you feel confused about your role in life or feel like you don't know who you are anymore?				
Do you have trouble believing that the person is really gone?				
Do you avoid reminders that the person who died is really gone?				
Do you feel emotional pain related to the death?				
Do you feel that you have trouble re-engaging in life?				
Do you feel emotionally numb or detached from others?				
Do you feel that life is meaningless without the person who died?				
Do you feel alone or lonely without the deceased?				

13. Have the symptoms above caused significant impairment in social, occupational, or other important areas of functioning?

- No
- Yes

14. Make one selection based on the support after your female partner died. There are no right or wrong answers.

Very Strongly Agree	Strongly Agree	Mildly Agree	Neutral	Mildly Disagree	Strongly Disagree	Very Strongly Disagree
There is a person who is around when I am in need.						
Very Strongly Agree	Strongly Agree	Mildly Agree	Neutral	Mildly Disagree	Strongly Disagree	Very Strongly Disagree
There is a special person with whom I can share joys and sorrows.						
Very Strongly Agree	Strongly Agree	Mildly Agree	Neutral	Mildly Disagree	Strongly Disagree	Very Strongly Disagree
My family really tries to help me.						
Very Strongly Agree	Strongly Agree	Mildly Agree	Neutral	Mildly Disagree	Strongly Disagree	Very Strongly Disagree
I get the emotional help & support I need from family.						
Very Strongly Agree	Strongly Agree	Mildly Agree	Neutral	Mildly Disagree	Strongly Disagree	Very Strongly Disagree
I have a special person who is a real source of comfort to me.						
Very Strongly Agree	Strongly Agree	Mildly Agree	Neutral	Mildly Disagree	Strongly Disagree	Very Strongly Disagree
My friends really try to help me.						
Very Strongly Agree	Strongly Agree	Mildly Agree	Neutral	Mildly Disagree	Strongly Disagree	Very Strongly Disagree
I can count on my friends when things go wrong.						
Very Strongly Agree	Strongly Agree	Mildly Agree	Neutral	Mildly Disagree	Strongly Disagree	Very Strongly Disagree
I can talk about my problems with my family.						
Very Strongly Agree	Strongly Agree	Mildly Agree	Neutral	Mildly Disagree	Strongly Disagree	Very Strongly Disagree
I have friends with whom I can share my joys and sorrows.						
Very Strongly Agree	Strongly Agree	Mildly Agree	Neutral	Mildly Disagree	Strongly Disagree	Very Strongly Disagree
There is a special person in my life who cares about my feelings.						

Very Strongly Agree	Strongly Agree	Mildly Agree	Neutral	Mildly Disagree	Strongly Disagree	Very Strongly Disagree
My family is willing to help me make decisions.						
Very Strongly Agree	Strongly Agree	Mildly Agree	Neutral	Mildly Disagree	Strongly Disagree	Very Strongly Disagree
I can talk about my problems with my friends.						

15. Thank you for your time.

Here is your Amazon Mechanical Turk Code