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Perceptions of Fear of Falling in Older Adults

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This is to certify that the doctoral dissertation by

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has been found to be complete and satisfactory in all respects,
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Walden University
2019

Abstract

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by

Ken Germano

MA, Adelphi University, 1977

BS, Manhattan College, 1973

Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

Doctor of Philosophy

Health Services

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Abstract

Many adults are afraid of falling. While aging can affect one's physical and cognitive abilities related to fear of falling (FOF), research has revealed that FOF increases risk of falls and adversely affects independence levels among older adults. The purpose of this study was to explore older adults' perceptions of FOF and risk of falling. Guided by the health belief model, the research questions focused on older adults' perceptions of FOF, contributing factors of FOF, and how FOF may affect independence levels. How older adults perceive FOF, and how FOF may affect an individual older adult's fall risk and independence levels are not well known. Following face-to-face interviews with adults age 60 and older, Colaizzi's data analysis strategy demonstrated thematic older adult reports of constant anxiety, loss of confidence, and activities of daily living (ADLs) avoidance as perceptions of FOF; traumatic health incidence, loss of health, and decreased quality of life as contributing factors in FOF; and depending on others, loss of muscle strength, and loss of balance as to how FOF affected older adult independence levels. Recommendations for future research include exploring the influence of gender, race, education level, and socioeconomic status on FOF in older adults. This study may enhance social change through greater FOF awareness and added context among caregivers.

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Dedication

I dedicate my dissertation to the American Public Health Association, the Centers for Disease Control and Prevention, and the Walden University Chapter of the Upsilon Phi Delta National Honor Society in Healthcare Management, the institutions we serve, and the services we provide as public health professionals.

Acknowledgments

I would like to thank the members of my dissertation committee for their support and guidance throughout my journey. To Dr. Earla White, many thanks for your constant encouragement and coaching during this challenging and enlightening time. To Dr. Cheryl Anderson, I am grateful for your subject-matter expertise which helped develop an ultimate shift in my research concerning fear of falling and its impact on fall risk in older adults. I also want to thank Dr. Patrick Tschida, who was always available whenever needed for overall technical guidance and support.

I want to thank my partner, Francesca Mallows, who has been the inspiration to complete this terminal degree. The support and love to continue moving forward when it would have perhaps been easier to stop reinforce in me that one is never done. For this I am forever grateful. I would like to thank my children, Zoe, Joelle, Alex, and Daniel, for their words of encouragement along the way. Lastly, in memory of my mother, Erma Germano, who died of a catastrophic fall during this research, I dedicate my dissertation.

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Chapter 1: Introduction to the Study

Introduction

Fear of falling (FOF) is a serious concern for society and health care leaders. FOF may increase the risk of falls and compromise the independence levels of older adults (Chang et al., 2016). Researchers have focused on falls among senior populations and how the effects of chronic disease, sedentary lifestyle, and inactivity increase fall risk (Clancy et al., 2015; Hadjistavropoulos et al., 2012). These factors may be linked to FOF but are not restricted to only adult populations 70 years and older (Vendrely et al., 2012). Current literature reveals a lack of research regarding FOF and fall risk among adults age 50 and older. A specific gap in the literature involves the perspectives of older adults concerning FOF. While research statistics present quantitative data surrounding falls, there is a paucity of literature surrounding the perspectives of those older adults who are most at risk for falling.

There are links between chronic health conditions, loss of strength, and physical inactivity levels in older adults. Muscular strength loss may begin around the age of 50 (Yanagita et al., 2014). Reductions in physical activity and loss of strength may lead to greater prevalence of FOF and risk of falls in older adults under the age of 70 (Parry et al., 2014). According to the Centers for Disease Control and Prevention (CDC, 2014), one in three adults age 65 and older will fall within a year, for an annual expenditure of $60 billion by 2020. In the United States, the members of the baby boomer generation began turning 65 on January 1, 2011 (Colby & Ortman, 2014). Therefore, it is important to create greater awareness of older adults' perceptions of FOF. Increased awareness may

help to delay disability and institutionalization resultant from falls, as well as save lives (Bolz et al., 2012). As the factors causing FOF are not fully understood, a greater understanding of this phenomenon may also lead to opportunities to save billions of dollars annually in healthcare costs (Chang et al., 2016). Researchers have linked FOF and increased fall risk in 40% of the older U.S. population (Boyd & Stevens, 2009). A study of perceptions of FOF in older adults may offer insights about FOF causes to inform healthcare services. This type of understanding may contribute to positive social change in the form of enhanced communication through renewed definitions and FOF vocabulary specifically aimed at older adults that may be delivered by nonhealthcare professionals. Based on the identified literature gap concerning FOF's effect in increasing the incidence of falls and expenditures due to falls, it is important and timely to pursue this study of adults' perceptions of FOF.

The literature gap identified concerning FOF, older adults' perceptions of FOF, and the background for this study are addressed in Chapter 1. The problem statement, purpose of the study, and research questions are described in connection to the identified literature gap. The conceptual framework guiding this study was the health belief model (HBM). This study's three research questions focused on older adults' perceptions toward FOF, contributing factors in FOF, and how FOF affects independence levels. This chapter also includes information on the nature of the study, definitions, assumptions, scope, delimitations, limitations, and the significance of this study.

Background

Researchers have focused on FOF and predictability of falls in older adults among elderly and frail populations. Early research identified the presence of FOF and informed ways to vary treatment due to its effect on self-efficacy and increased inactivity levels (Tinetti et al., 1994). However, FOF within later studies was only quantitatively measured (Landers et al., 2011). More recent researchers differed in approaches, underscoring the requirement for more rigorous observation, data collection, and comparative analysis of older adults' perceptions of FOF (Chang et al., 2017; DeGuzman et al., 2013). While only approaching FOF within research as an unintended consequence of aging and chronic disease, in elderly populations, is limited. According to statistical and expenditure evidence, the requirement for further analysis is also supported (CDC, 2014).

Further analysis of research investigating chronic disease, increased fall risk, the deleterious effect of FOF on balance and reaction time, did not account for the investigation of FOF within an older adult population aged 50 to 75 (Morrison et al., 2010). A trend has been noted in research in which older adults with poor health status who are also sedentary may experience increasing FOF (Host et al., 2011); isolating FOF as a separate variable may promote flexibility and individualization with FOF reduction therapies for adults aged 60 and over. A connective thread linking both physical impairment and accompanying psychological anxieties has been emphasized within successful FOF reduction therapies (Young & Williams, 2015).

Understanding the effects of FOF, both physical and psychological, is critical in observing the perceptions of older adults. Although both physical and psychological elements denote the presence of FOF (Park et al., 2011), key influencing elements have not been qualitatively researched well (Chang et al., 2016). A more thorough and qualitative assessment of perceptions of FOF in older adults may further inform an understanding of FOF, when FOF occurs, whether FOF is persistent or transient, and how members of the health and caregiver community can best approach FOF within an older adult population.

Problem Statement

FOF increases the risk of falls among older adults. There is an observed link between FOF and an increased fall risk for older adults (Boyd &Stevens, 2009). FOF and increased fall risk are present in nearly 40% of the older U.S. population (CDC, 2014). The effect of FOF on balance and fall risk indicates an important mind-body link in adults 65 years of age and older (Hadjistavropolous et al., 2011). Researchers have found that older adults with FOF are less likely to participate in activities of daily living (ADLs) (Allison et al., 2013; Dorresteijn et al., 2016). Evidence links FOF and fall risk; however, little is known about what older adults perceive about falling or FOF (Young & Williams, 2015). The problem is that healthcare professionals may not fully understand the factors that can influence FOF in older adults. With a more accurate understanding of FOF, it may be possible to address FOF specifically and help to assuage the growing incidence of fall risk within an older adult population (CDC, 2014). In this study, by expanding upon

previous research in this area, I sought to contribute additional context for this problem by asking older adults about their perceptions about falling and the concept of FOF.

Purpose of the Study

The purpose of this qualitative phenomenological descriptive study was to explore older adults' perceptions concerning FOF and their views on their own risk of falling. In an important retrospective study by Sheffer et al., (2008), observations within the literature review identified a gap in participant age over 70 years, where 147 studies were reviewed and those with participants under the age of 65, $n = 3$, were excluded. Recent literature has revealed the presence of FOF in adults under the age of 60 (Chang et al., 2017). More recent research also began to include specific gender, but FOF, fall root cause, and the unintended consequences of health status and environment have not been frequently studied (Boyd & Stevens, 2009). Perhaps the difference in findings is not within a specific study as much as it is within the approach or participants' perceptions. In an important and earlier study, research revealed that FOF should be approached in a more qualitative way, in contrast to traditional statistical analysis for presence, and after the subject had fallen at least once (Sheffer et al., 2008). Fall risk and actual falls may be prevented in community settings when residents participate in specific physical activities and improve the safety of their surroundings within the community (Lord et al., 2011). Within recent studies investigating older adult fall risk, researchers have not accounted for FOF. Two additional gaps were identified within current fall literature. First, researchers have focused on the practitioner side in identifying risk factors for fall predictability and addressing interventions that focus on strength and balance

discrepancies. Second, outdoor falls have not been widely addressed in comparison to falls occurring indoors (i.e., within homes and institutions) and whether prevalence of FOF exists (Nyman et al., 2013). Studying FOF is significant in identifying falls categorically and in presenting new variables for consideration when addressing FOF for specific physical or cognitive interventions to enhance effectiveness in mitigating risk of falls in older adults.

Recent qualitative research has revealed these gaps within the literature by examining in detail older adults' retrospective accounts of outdoor falls, the contextual factors associated with outdoor falls, and the interrelationship of these factors with injury and FOF in older adults aged 65 to 92. However, within a study of nine focus groups, no participant was younger than age 69 (Young & Williams, 2015).

Research addressing falls within an outdoor environment, risk factors, and categories to consider regarding a risk of future falls although identified, did not present cultures, or recommendations for FOF. Furthermore, additional studies are needed to address fall risk programs for older adults' places of residence, along with interventions that aim to mitigate participant FOF in various environments, including rural settings, where research has been limited (Chang et al., 2016; Park et al., 2011). Future research in this area might also include additional stakeholders, family-member caregivers, or healthcare professionals who serve within varied locations.

The phenomenon and concept of interest for this study involved perceptions of FOF in older adults. Observations and assessments of FOF in older adults, although informed by quantitative tools such as the Falls Efficacy Scale (FES) and Modified Falls

Efficacy Scale (MFES) developed by Tinetti et al. (1990; 1994), must now expand beyond these instruments. Moving beyond quantitative analysis may enable a better understanding of why and when older adults may begin to demonstrate low self-efficacy or loss of confidence within their daily activities. To better understand this phenomenon, three questions were identified as the primary focus for this study.

Research Questions

The following three qualitative descriptive and open-ended questions were derived from the problem statement and purpose of this study to describe perceptions of FOF in older adults.

RQ1: What are the perceptions of older adults toward fear of falling?

RQ2: What are older adults' perceptions of contributing factors in their fear of falling?

RQ3: How do older adults perceive that fear of falling has affected their independence levels?

Conceptual Framework

The phenomenon that grounded this study involved FOF and the perceptions of older adults, what older adults think may be contributing factors in FOF, and, ultimately, how FOF may or may not affect their self-efficacy and independence levels. Research has revealed the presence of FOF and measured the prevalence of FOF, and some research has supported less activity and sedentary behavior to reduce fall risk and FOF in specific settings (Boltz et al., 2014). Prior research has demonstrated an opposite and successful approach to mitigating FOF that reinforces both the similarities and differences regarding

FOF perceptions in older adults (Vendrely, 2012). Once FOF is identified in older adults, there is a need for subject individualization in future research approaches (Boltz et al., 2014). If it is known that older adults perform less well on average in physical activity tests, then it is necessary for researchers to drill deeper to discover why FOF manifests in the first place and when it begins to appear within the behavior of older adults. What does FOF sound like, and what does FOF look like?

The conceptual framework of this study provided a lens for better relational understanding of participants' viewpoints and responses and allowed for more in-depth observation of their human health decision-making and subsequent behavior. Within the HBM, decision making and behavior are based on the concepts or constructs of *perceived susceptibility* (i.e., a person's opinion regarding his or her chances of developing a specific condition), *perceived severity* (i.e., a person's opinion regarding a condition's seriousness as well as consequences), *perceived benefits* (a person's confidence level regarding risk-reduction activity), *perceived barriers* (i.e., a person's understanding of his or her current mental and physical requirements), *cues to action* (i.e., a person's understanding of what is needed in order for him or her to begin shifting behavior), and *self-efficacy* (i.e., a person's self-understanding of his or her confidence in performing an action and how this may be sustained). This model, which aligned specifically with this study, expands upon social cognitive theory (Bandura, 1991) from the perspective of self-regulation of health behavior. I anticipated that understanding older adults' viewpoints and perceptions might reveal perceived susceptibilities and contributing factors in relation to FOF, as well as what older adults thought regarding their perceptions of FOF.

Based on this notion, HBM elements informed this study and emphasized the effect of anxiety in regard to older adults' cognitive ability evidenced within FOF (Boyd & Stevens, 2009), and perhaps how it might develop and negatively impact self-efficacy (Kim et al., 2012), life function, or level of independence. Within the framework of this study, it was my aim and focus to observe and listen to FOF perceptions in older adults in whom the influence of any cognitive impairment should not have been present (Boltz et al., 2014).

The theoretical framework for this study was the HBM as described by Miller (2010), whose qualitative study on older adults' perceptions of fall prevention supported loss prevention of function and independence in adults aged 70 and older. A conceptual framework, depicted in Figure 1, was constructed to illustrate the alignment of the HBM with the three research questions for this study.

The six HBM elements can be expanded to apply to FOF regarding susceptibility, severity, risk avoidance, and capabilities to participate in ADLs and demonstrate independence (CDC, 2012; Vendrely, 2012). In this study, older adults' perceptions of FOF were examined. A more thorough explanation of the logical connections among key elements of the framework is presented in Chapter 2.

For this study, an interview protocol was developed (Appendix C) to support a systematic process for obtaining data. The list of questions was reviewed and validated by two subject-matter experts (SMEs): (a) a noted physician and researcher in the field of FOF and risk-of-fall prevention and (b) a noted faculty member whose research and subject-matter expertise focus on fall-risk prevention. The SMEs' professional experience

aligned with the scope and content of this study. The study methodology is described in more detail in Chapter 3.

Descriptive Phenomenological Qualitative Framework

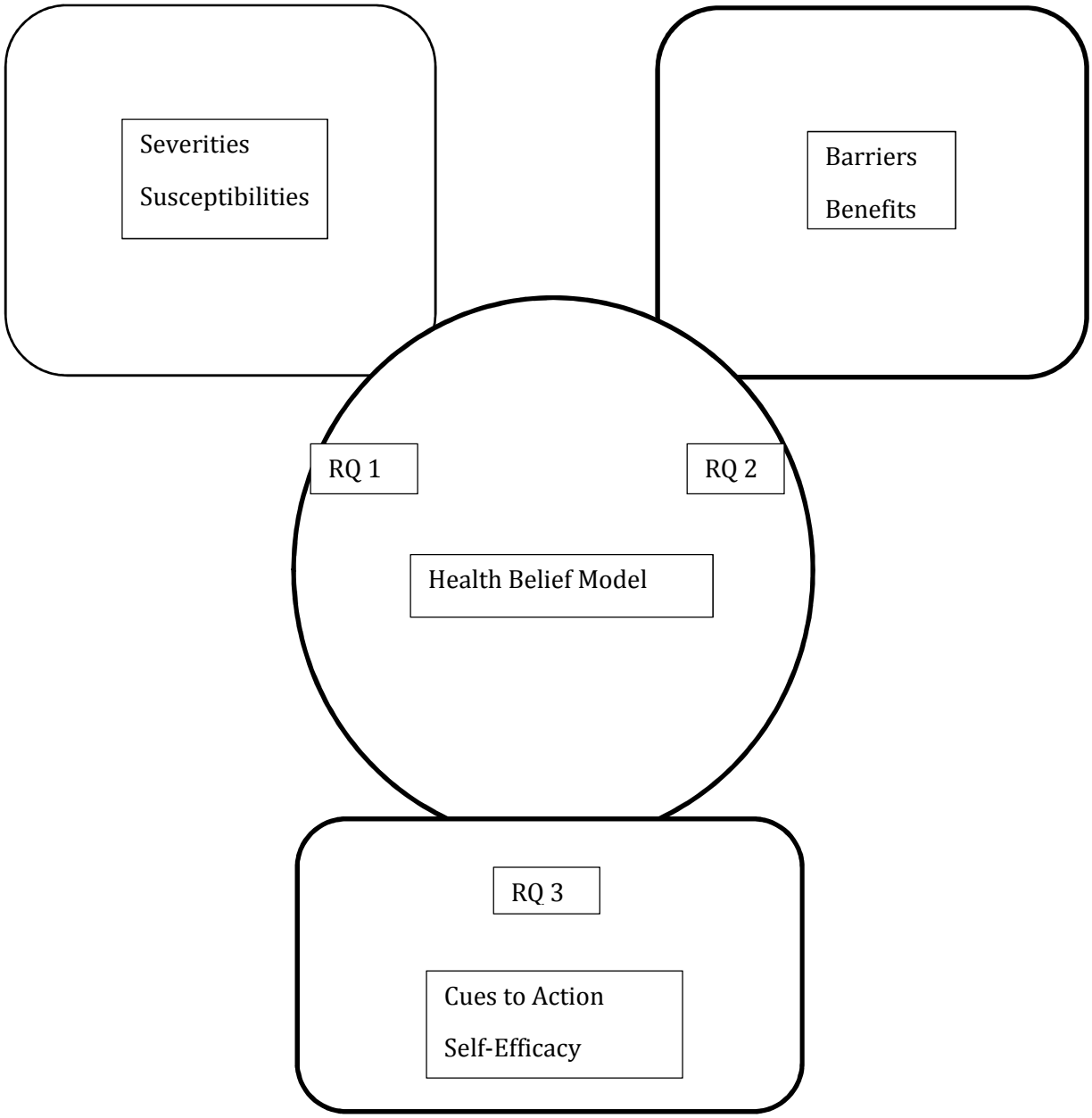

Figure 1. Conceptual framework for the study.

Nature of the Study

The nature of this study derived from its descriptive phenomenological approach. A qualitative approach allows researchers to observe FOF phenomena and why these phenomena develop, in real time and through the individual participant's lens, to gain an understanding of older adults' perceptions of FOF (Finch et al., 2014). A qualitative descriptive phenomenological study provided a framework that allowed me to present well-founded information to expand upon the (traditionally quantitative) body of research regarding fall risk, which has grown to include the emergence of FOF and the inseparable link between FOF and risk of falls in older adults. Despite an increasing amount of research conducted on this topic over the past few decades, the incidence of fall risk continues to rise. Based on its phenomenological nature, my study was designed to expand the depth and breadth of information on FOF perceptions and why adults aged 60 and older may develop these perceptions as individuals.

The key phenomenon investigated in this study was FOF in older adults. Ultimately, through this study's aim and focus, I sought to perform a paradigm shift from past research that quantitatively measured the extent of fall risk and the presence of FOF. It is important to recognize similarities and differences in perceptions of FOF among both community-dwelling older adults and institutionalized older adults. Such recognition reinforces the need for individual understanding specific to risk-of-fall prevention, in that one size does not fit all in regard to therapies or interventions (Boltz et al., 2014). It was also important to assess the strengths and characteristics of past approaches to this subject

matter that involved qualitative methods, as demonstrated in recent studies (Clancy et al., 2015; Host et al., 2011). With limited participant data from both indoor and outdoor community environments for the targeted population (Chang et al., 2016), current factors associated with FOF history were also observed for as the analysis of older adults got underway. In using a descriptive phenomenological approach informed by this study's three research questions, I sought to identify thematic patterns within the content collected from face-to-face, semistructured interviews, where the meaning of participants' experience revealed itself through inductive analysis. This study used an open-ended questionnaire to conduct interviews with community-dwelling older adults age 60 and over, which allowed for flexibility depending on the direction each interview took. Secondary interviews regarding the research questions were planned but did not take place within this study of community-dwelling older adults, including notes, as sources for main data collection.

Within the research and based on current qualitative analysis regarding FOF, fall risk, and falls, this phenomenological study sought to provide heterogeneity versus a homogenous sample based on a descriptive phenomenological approach (Clancy et al., 2015; Host et al., 2011). This study used the analytical process developed by Colaizzi and described by Sanders (2014) to determine FOF prevalence levels among community-dwelling older adults. This analytical approach may identify both common characteristics and differentiator variations that inductively emerge throughout a study. The method of constant comparative analysis as described by Gibbs (2014) and Charmaz (2006) through the use of NVivo software was used to code and identify themes within the collected data

(Hutchison et al., 2010). From the observed themes and subcategories identified, a data matrix was organized with the aim of achieving saturation as described by Gibbs. NVivo places a tremendous emphasis within its architecture on the all-important literature review (Hutchison et al., 2010). The implementation of computer-assisted qualitative data analysis software (CAQDAS) has demonstrated capabilities that enhance both data repository and analytical aspects within qualitative analysis (Hutchison et al., 2010).

Definitions

Facilitating a communication thread throughout this study is important. The following operational definitions from reviewed sources help to construct an informational baseline of contextual terminology recognized and accepted within research regarding FOF and risk of falls.

Activities of daily living (ADLs): The daily activities that one performs in regard to behaviors that comprise the independent life of a fully functioning adult. These include activities such as dressing and undressing, preparing a simple meal, bathing, getting in and out of a chair and a bed, and light housekeeping. These were defined in the early work of Tinetti and Powell (1990) and later described by Hill et al. (1996).

Cognitive-behavioral therapy (CBT): Augmenting physical interventions that improve balance, strength, and stability, CBT applies elements that support increases in both confidence and self-efficacy levels in older adults (Kim et al., 2012; Vendrely et al., 2012).

Community-dwelling older adults: Perceptions associated with FOF are not generalizable among older adults within community or home surroundings (Chang et al.,

2016). It is important to identify the environment when studying FOF in older adult populations such as institutions or outdoor environments that may denote causal difference (Boltz et al., 2012).

Falls Efficacy Scale (FES): To separate FOF from physical aspects of fall risk such as balance, Tinetti et al. (1990) constructed the FES to quantify FOF levels during ADLs that included answering the door or telephone, simple shopping, walking around the house, and reaching into cabinets.

Fear of falling (FOF): Originally observed and described as loss of self-efficacy or low self-efficacy concerning ADLs, balance, and gait (Tinetti et al., 1990). In the past, FOF was referred to with the terms *ptophobia* (Bhala et al., 1982) and *postfall syndrome* (Murphy & Isaacs, 1982). More recently, FOF has been described as an overexaggerated anxiety in regard to falls and preventing their occurrence (Park et al., 2013).

Independence level: The level of independence or dependence demonstrated in an older adult who has shown a measured presence of FOF, whether the adult has experienced a fall or not (Parry et al., 2014).

Indoor and outdoor falls: To better understand specificity within FOF research, it is critical to identify and define the factors associated with varied settings and beyond institution and community dwelling. Fall types identified by specific environment, provide a measuring link between FES and MFES, as well as the addition of the Dynamic Gait Index (DGI), although predicting falls is next to impossible (Vendrely et al., 2012).

Modified Falls Efficacy Scale (MFES): The MFES was created to expand upon the original elements of FES by including outdoor activities. The MFES uses the original

10 FES activities plus four more (i.e., using public transportation, crossing roads, light gardening, and using both the front and rear steps of one's home; Tinetti et al., 1993).

Older adults: This group was defined differently across the various studies within the literature review. As defined by Parry et al. (2014) and Park et al. (2011), the term *older adults* may apply to individuals ranging in age from 40 to 92 years who demonstrate FOF.

Perceptions of fear of falling: How adults age 70 and older think about FOF in regard to whether they have experienced a prior fall or not. According to Vendrely et al. (2012), FOF was more discernible within older female populations, in which it increased isolation and limited ADLs. Less is known regarding FOF perceptions in older adults younger than 70 (Vendrely et al., 2012).

Self-efficacy: Defined as an individual's confidence level in relation to achieving goals and objectives through positive and sustainable behaviors, specifically in regard to FOF and risk of falls (Kim et al., 2012).

Assumptions

The focus of this study and observed within the literature review, are that although FOF is measurable for presence, research results have proven to be ungeneralizable as well as unpredictable in setting this phenomenon apart from a person's physical limitations such a poor balance or lack of stability. This has been described within a recent and retrospective study that defined a trend in research toward physical interventions for reducing fall prevalence (Parry et al., 2014). Past research and retrospective analysis also included studies measuring the presence and improvement of

FOF but also cited more recent research that did not support a presence or improvement of FOF (Parry et al., 2014).

I used semistructured interviews and open-ended questions for data collection purposes. It is plausible that all participants chosen responded truthfully regarding their perceptions of FOF. However, it would be difficult to demonstrate whether participant responses were truthful or not. Due to the limited sample size for this study, although important themes regarding FOF might have been realized, the opportunity for extrapolation to larger populations was limited. These are important assumptions due to the transience, or permanence of FOF. How little is known about what older adults perceive about FOF, and how this problem, by asking older adults about their perceptions of FOF was observed.

Scope and Delimitations

Although evidence in research connects FOF and fall risk, the link between the two has not expanded. The problem is that healthcare professionals and caregivers may not fully understand the factors that can influence FOF in older adults. Past significant research has identified FOF, but there is still little known about what older adults perceive about falling or FOF (Tinetti & Powell, 1993; Young & Williams, 2015). Through this qualitative study, I sought to address this problem by asking older adults about their perceptions towards FOF, what they perceived as contributing factors in FOF, and how FOF had affected their independence levels.

This qualitative descriptive study was undertaken to describe older adults' perceptions of FOF and their views on their own risk of falling. Personal interviews were

used to develop an understanding of adults age 60 and older and their perceptions of FOF. As past research relevant to this study's specific focus on FOF has been limited, the study's results may inform further efforts to address FOF in a larger population of older adults, in addition to providing important information to healthcare professionals and family caregivers interacting with older adults. It is important to increase FOF health literacy among healthcare professionals, caregivers, and participants. Enhancing FOF health literacy my better enable these populations to observe factors specific to FOF versus only identifying its presence, as measured in previous studies (Chang et al., 2016). Moreover, this study may reinforce the need for further research on FOF in relation to gender differences, as well as on FOF in older adults under the age of 60.

Limitations

Within this qualitative descriptive study, limitations existed in relation to funding, time, geographic location, participant sample size, participants' honesty in responding to questions, and my ability as the researcher to conduct consistent interviews for rich data collection. Although this study did not rely on a population sample of convenience, the success of its random selection of participants may have also affected the study results in determining greater applicability.

Additionally, the influence of researcher bias was among the limitations of this study. Ironically, as I finalized my research prospectus, I witnessed an older adult suffer a catastrophic fall outdoors. The fall severely incapacitated the individual, tragically leading to death 9 weeks later.

It has been noted that research on older adults' perceptions of FOF as well as factors associated with older adults and FOF has been limited. The importance in understanding the constraint of time placed on data collection, in order to ensure the accuracy of research tools, an alpha test or pilot study was included within this study and prior to the main data collection effort. It is important to note that this study provides only a narrow sample of what a larger study concerning perceptions of FOF in older adults might provide when time and resources pose no limits.

Significance

Gaining an understanding of the perceptions of older adults about how and why they develop FOF is important. Individuals identified with FOF experience barriers in performing ADLs and may suffer loss of independence. For this population, participation in fall-risk prevention programs may actually increase the incidence of falls (Host, 2011). The CDC (2014) reported findings indicating that one in three U.S. adults age 65 and older will fall each year, leading to total annual expenditures of $60 billion by 2020. There is growing evidence that fall-risk prevention and increased health literacy may delay older adult disability, institutionalization, and loss of freedom (Miller, 2010).

Research has provided quantitative evidence that FOF increases the risk of falls among older adults. In an important study, an inseparable link between FOF and an increased fall risk for older adults was observed to be present in nearly 40% of the older U.S. population (Boyd & Stevens, 2009). The effect of FOF on balance and confidence in relation to fall risk indicates an important mind-body link in adults 65 years and older (Hadjistavropolous et al., 2011). Prior to these research studies (Boyd & Stevens, 2009;

Hadjistavropolous et al., 2011), the need to measure FOF in older adults was observed, leading to varied approaches to fall prevention and treatment (Tinetti & Powell, 1993). Researcher has revealed that older adults with FOF are less likely to participate in activities (Allison et al., 2013). Evidence links FOF and fall risk; however, little is known about what older adults perceive about falling or FOF (Young & Williams, 2015). In this study, I sought to address this problem by asking older adults about falling and the concept of FOF.

This effort to understand older adults' perceptions of FOF is timely and significant because it may provide insights to support fall prevention and sustain individuals' independence levels. This study's findings may inform healthcare service providers, allowing them to develop more accurate insights into the factors influencing FOF. This study's findings may ultimately contribute to positive social change in the form of increased FOF awareness and improved interactions between providers and older adults. Published information from this study may provide new context on the mind-body link that may be delivered by nonclinical professionals to increase scalability (Parry et al., 2014).

Summary

This chapter included the importance for understanding the perceptions of FOF in older adults. Current literature reveals a lack of qualitative research regarding FOF within older adult populations age 65 and older. Listening to the perceptions of FOF in older adults may delay disability and institutionalization as well as save lives and billions of dollars annually in healthcare costs. Based on the increased incidence of falls and rising

expenditures due to risk of falls, it is important to include older adult participants as stakeholders within the continuum of care to further ensure specificity required in constructing more individualized approaches in treatment and application.

In the literature review in Chapter 2, I identify, describe, and evaluate studies supporting the research problem, questions, and study significance. The chapter also contains descriptions of the study's theoretical framework and methodology and supports the appropriateness of the instruments and data collection methods used.

Chapter 2: Literature Review

Introduction

The phenomenon of FOF, perceptions of FOF in older adults, and how FOF may adversely affect the lives of older adults are not fully understood by health professionals. The purpose of this study was to better understand older adults' perceptions of FOF through a descriptive phenomenological approach. For decades, FOF has been identified and quantified as a factor that increases the risk of falls in older adults. This has led over time to an increasing need for integration of therapies that emphasize strength, balance, and stability elements as a way to reduce FOF in older adults (Dohrin et al., 2015). The investigation into FOF as a separate variable regarding its effect on the lives of older adults has been minimal. The mere identification of FOF in research does not provide more than a sporadic investigation into the factors that may influence FOF in older adults. Lack of understanding of these factors by health professionals may contribute to a one-size-fits-all approach to mitigating FOF in older adult populations, rather than a program that is more individualized (Hsu et al., 2013).

FOF has appeared in research since the early 1980s, when Murphy and Isaacs studied postfall syndrome in adults age 65 and over (Oliver et al., 2007). The presence of FOF in older adults may lead to a decrease in activity and loss of muscle integrity over time, affecting mobility and overall functionality; thus, FOF is a problem for older adults that is of great importance to U.S. healthcare (Tinetti, 1995; Vellas et al., 1997; Yangita & Shiotsu, 2014). There are factors that may increase the incidence of FOF as well as reduce independence levels in older adult populations, however. Older adults may also

demonstrate a problem with gait or balance that denotes FOF but does not necessarily mean that a fall has occurred. The anxiety of older adults associated with FOF, which is similar to lack of balance, and modified gait, may share risk factors. This association does not necessarily denote that a fall has occurred, and should be important to healthcare professionals, and reason for additional assessment (Bruce et al., 2002; Gardner & Harding, 2009; Vellas et al., 1997).

Ultimately, lack of understanding of older adults' perceptions of FOF by health professionals may contribute to an increased incidence of fall risk in older adults. In Chapter 2, I present additional information on the complexity of the FOF phenomenon in older adults. The literature search strategy is presented in this chapter, along with theoretical concepts important to this research. The literature review in this chapter encompasses the HBM and FOF, FOF in older adults, FOF and loss of independence, FOF as an independent risk factor to consider in assessing older adults, associated barriers, and raising FOF awareness. An overview of the themes observed in the literature is provided in the chapter summary and conclusion.

Literature Search Strategy

The literature review for this study was conducted through the use of the Walden University library. The Walden University portal and Walden library home link were iteratively employed for the CINAHL and MEDLINE databases, with key terms including *fear of falling in older adults, fear of falling screening in community dwelling older adults, fear of falling effect on loss of independence, fear of falling and chronic conditions in older adult populations,* and *fear of falling qualitative studies in older*

adults. Additional databases used to locate studies and information from government agencies were Wiley, Elsevier, American Gerontological Association, PubMed, and Google Scholar.

The initial terms/keywords used were *fall risk, fall risk screening in older adults, outcomes utilizing the Tinetti balance assessment tool, fear of falling*, and *balance loss in older adults.* The latter phrases did not produce the accuracy required in articles for the ultimate research aim and focus on FOF. Gaining a more complete insight into falls and risk of falls within older adult populations, reinforced an iterative approach that was important to the totality of this study. The purpose of this review was to exhaust databases for information relevant to FOF and older adults in order to reveal gaps within the literature. All keywords were searched independently and in specific combinations.

Through the literature search, I gathered 256 sources, of which I deemed 117 most relevant to my study. The literature used to inform the study included peer-reviewed journal articles, books, government reports, provider resources on FOF and fall risk, encyclopedias, and dissertations from the years 2011-2017. A journal resource from 2000 addressing qualitative descriptive studies was included. A CDC report from 2014 addressing older adult falls and expenditures was included, as were reports from the U.S. Department of Health and Human Services (2014) and the U.S. Bureau of Labor (2015). All sources used for the literature review were accessed in English. The literature review ultimately informed the conceptual framework used to guide the analysis and interpretation of the data collected within this study.

The quantified presence of FOF in conjunction with increased fall risk in older adults was evident throughout the literature review. FOF has been a major element of risk-of-falls studies. However, a greater amount of research has focused on populations of senior adults aged 70 and older, in which the risk of falling is more prevalent (Vendrely et al., 2012; CDC, 2010; Konstantinos et al., 2010). Throughout this study and literature review, it was clear that identifying the presence of FOF is very important. Although past methodology has identified that FOF presence exists in older adults, precisely when FOF becomes apparent in older adults who have (or have not) experienced a fall remains unclear. Of all aspects of risk of falls, functional balance ability has a stronger relationship with FOF than gait speed or sit-to-stand performance (Huang et al., 2013). If by research it is known that older adults with FOF perform less well on physical activity (PA) tests, by studying older adults' perceptions of FOF it is possible to drill deeper to discover why and how FOF manifests in older adults. A description of the methodological approach and discussion of how the conceptual framework guided this study follow.

Health Belief Model and Fear of Falling

It is important to understand the phenomenon of FOF through older adults' perceptions. The question of how FOF may (or may not) influence factors that contribute to fall risk is a complex one. The HBM was used to inform the conceptual framework for this study. Research concerning health behaviors, public health initiatives, and the HBM conceptual framework informed this study's research questions and the themes that emerged regarding the viewpoints and FOF perceptions of older adults (Miller, 2010).

The HBM originally implemented and utilized for more than half a century (Rosenstock et al., 1988) and may inform how people may or may not self-regulate health behaviors. Within this study, how older adults perceived FOF, what factors contributing to FOF sounded like, and how FOF might or might not affect individuals' level of independence were informed by the elements of the HBM. Whether or not older adults will or will not take preventive measures (Pohl et al., 2015) are informed by HBM elements which underscore the inductive discovery within qualitative studies that seek to explore the perceptions of participants.

The HBM was initially composed of the four key elements of perceived susceptibility, perceived severity, perceived benefits, and barriers to action regarding behaviors. The constructs of the HBM were later expanded to six, with the addition of cues to action and self-efficacy. As their level of self-efficacy increases (Rosenstock et al. 1988)—or, in the case of fall risk, as they overcome FOF—adults are motivated to change behaviors that may increase their risk of falling. As shown in Figure 2, the study framework and HBM were expanded to include proactive constructs, steps, and logic flow beginning with FOF identification, enhanced education, activity, improved mental, physical capacity, fall risk reduction, an older adult's perceptions of FOF, and grounded within this study's three research questions.

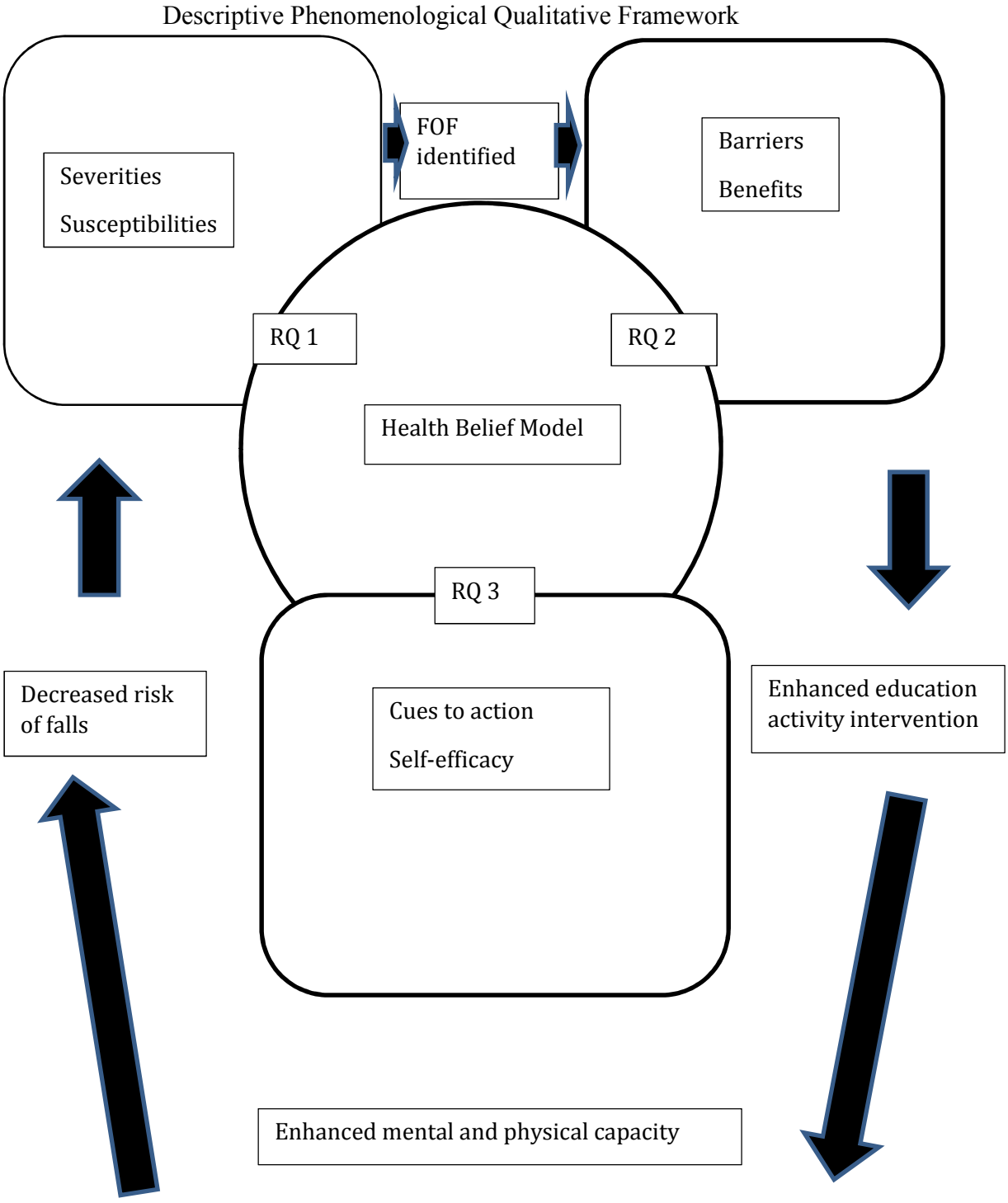

Figure 2. Health belief model, proactive steps, and fear of falling.

The HBM informed the qualitative methodology of descriptive phenomenology for this study on perceptions of FOF in older adults. Recent qualitative studies have investigated how men's and women's understanding of fall risk influences whether or not preventive measures, cues to action, are taken to reduce the risk of falls (Pohl et al., 2015). Researchers in previous studies have not, however, accounted for FOF and, in doing so, sought to explain why older adults' adherence to fall prevention activity programs is low (Pohl et al., 2015). Given that the link and interrelation between FOF and risk of falls is well established in research, it is interesting that FOF is not as often included within preventive intervention research as are the elements of balance, strength, and stability.

Ultimately informed by the HBM, this study's research questions were developed with the aim of better understanding older adults' perceptions concerning FOF, susceptibilities, severities, factors contributing to FOF, barriers, benefits, and how FOF may have affected their independence levels, self-efficacy, and cues to action. By integrating question and theory elements within this study, I sought to allow for the discovery of a mindful-awareness approach to FOF and its presence when assessing fall risk in older adults. The cognitive-behavioral therapy (CBT) aspect integrated within fall risk prevention has been studied recently (Vendrely et al., 2012). As I hoped to work toward preventing a downward spiral in older adults beginning with low self-efficacy and leading to decreased quality of life, I saw the HBM as providing a solid conceptual framework to investigate the FOF perceptions of older adults.

Literature Review and Prominent Research

FOF is a complex phenomenon and has been a significant element within research investigating the risk of falls in older adults. However, researchers in this area have predominantly focused on adult populations 70 years of age or older (Vendrely et al., 2012). Research has led to a more recent focus on studying FOF by gender as patterns of factors associated with FOF in women and men on their quality of life are unknown. The FOF factors once researched have been determined as postfall syndromes but recently identified within community-dwelling older adults who have not yet experienced a fall (Chang et al., 2016). However, the presence of FOF in an older adult who has not yet experienced a fall is not a new concept (da Silva et al., 2013).

In this study's literature review, the quantifiable presence of FOF, accounted for in up to 40% of the older adult population (Tinetti & Powell, 1993; Boyd & Stevens, 2009), is presented. More recent qualitative studies have accounted for older adults taking fall-prevention measures; however, these studies have not included consideration of FOF in older adults under 70 years of age (Nyman et al., 2013; Pohl et al., 2015; Chang et al., 2016). Although factors of FOF have been continually studied regarding the interrelationship between FOF and fall risk, there still seems to be a lack of consistency concerning how best to approach FOF in older adults. The ways in which perceptions of FOF in older adults may or may not influence the risk of falls in older adults have yet to be fully determined.

Fear of Falling in Older Adults

FOF has been identified and quantified in older adults as a barrier to sustained socialization and participation in activities (Filiatrault et al., 2013). The effects of chronic disease, sedentary lifestyles, and inactivity on FOF should not be overlooked. Current literature reveals a lack of research regarding fall risk within older adults aged 51-69. Physical inactivity has been shown to affect increases in chronic long-term conditions (Marks, 2014), and recent research has identified muscular strength loss beginning in and around the age of 50 (Yanagita et al., 2014). This may also lead to the presence of FOF and greater fall risk in a variety of settings.

More recent research has expanded upon traditional studies of FOF and fall risk within institutions and home environments. A qualitative study that explored older adults' perceptions of outdoor falls specifically to identify cues to action toward preventive behaviors was undertaken by Nyman and associates (2013). Nyman et al. succeeded in identifying factors supporting the presence of FOF while noting the limited research on falls and seeking to expand upon this universe, which predominantly focused on indoor falls, physical limitations, and exercise remedies. As the risk-of-fall universe becomes more categorically inclusive, a greater understanding of older adults' perceived susceptibilities in regard to FOF and risk of falls may be achieved. As the presence of FOF in research becomes more frequent, additional barriers reinforcing ultimate loss of independence in older adults may be perceived. Although the personal experiences of older adults are present in research, what has not been accounted for within prior research

is the presence or perception of FOF in older adults who may not yet have experienced a fall (Boltz, 2012; Nyman et al., 2013).

Although they focused on older adults with a mean age of 78, *Nyman* et al., (2013) identified important elements that may help to inform research on perceptions of FOF in older adults. In Table 1, I present the elements identified by Nyman (2013) for investigating FOF in older adults, along with related questions.

Table 1

Elements for Investigating FOF in Older Adults

Elements	Perceptions of FOF in older adults
Environments	How may environments affect older adults' perceptions of FOF?
Gender differences	How may genders perceive FOF differently?
Social aspects	How may FOF affect social interactions among older adults?
Personal effects	How may FOF affect personality traits within older adults?
Health literacy	How may understanding FOF affect older adults' perceptions of FOF?

It is clear within the literature that FOF presence has been identified in older adults who have a history of falling at least once. However, this does not account for other factors that may or may not influence FOF in older adults. When within the lives of older adults does FOF arrive, whether or not it is transient or permanent, and how does it affect their levels of independence?

Fear of Falling and Loss of Independence

Research regarding risk of falls in older adults has focused on elderly and frail populations for some time as evidenced within the literature review. The literature has been more focused on predictability of falls evidenced within earlier research studies

(Tinetti, 1990; Schumway-Cook, 2005). More recently presented research reveals that although congruent in its quantitative assessment of FOF, also included a qualitative approach to explore FOF in older hospitalized adults aged 70 and above (Boltz et al. (2012). Presence of FOF in older adults may lead to activity limitation and lack of muscle integrity overtime, affecting mobility, overall functionality, ultimately their independence, and of great importance to U.S. healthcare (Tinetti, 1995; Vellas et al., 1997).

Approaching risk of fall and FOF research as an intended consequence of aging and chronic disease in elderly populations according to statistical and expenditure evidence also supports a requirement for further and more qualitative analysis (CDC, 2014). Although more recent research within the literature review depicts the presence of comorbidities and a younger demographic, a departure from elderly and frail, noting the decline in older adult's muscular strength in and about the 50's and henceforth, a more concentrated effort within the population of a true 65 years of age and loss of independence be explored (Marks, 2014; Lloyd et al., 2013; Yanagita et al., 2014). Based on these findings, discrepancies for strength in both older adult faller and non-faller groups were noted. Also defended was the hypothesis that exists a relationship between increased FOF, lack of musculoskeletal integrity, balance, and stability as it pertains to other isolated conditions which could be treated as comorbidities in a multi-factorial setting. These factors associated with FOF can all disrupt independence levels and create barriers to participation in ADL for older adults (Filiatrault et al., 2013).

Gaps identified within the early literature reviews identify a gap in participant age again where 147 studies were reviewed and those with participants under the age of 65, *n* = 3, were excluded (da Silva et al., 2013; Sheffer et al. (2008). This also included gender but fall root cause versus an unintended consequence of one's health status, work related, and or, environment is not. Perhaps the difference is not in a specific study as much as it is within the approach or participant perception. Therefore, the notion of fear of falling could be approached in a more qualitative way versus the traditional statistical analysis and after the subject has fallen at least once as evidenced with the inclusion of a qualitative aspect (Boltz et al., 2012).

In research undertaken for the purposes of identifying characteristics of outdoor falls among older adults, the researcher demonstrated that both fall risk and actual falls may be prevented in community settings when residents participate in specific physical activities, improving the safety of their surroundings, and sustaining their independence levels within a community (Chang et al., 2016). Two gaps within current fall literature were identified. The first, researchers have focused from the practitioner side in identifying risk factors for fall predictability and interventions that focus on strength and balance discrepancies. Lastly, that outdoor falls as presented, have not been addressed in comparison to falls occurring indoors, within one's home or an institution and lastly, for the presence of FOF (Nyman et al., 2013). This would seem significant in identifying FOF and categories of falls that present new variables to be considered when addressing the perceptions of FOF in older adults. A recent qualitative study of began to address these gaps within the literature by examining in detail older adults' retrospective accounts

of outdoor falls in exploring the contextual factors associated with outdoor falls, and the interrelationship of these factors with injury and FOF for older adults aged 65 to 92 (Nyman et al., 2013). However, within nine focus groups no participant was younger than 78. By addressing falls within an outdoor environment, risk factors and categories to consider regarding a risk of future falls have now been identified. Furthermore, additional studies may also address fall risk programs for community participants, one's place of residence as well as, interventions that aim to mitigate participant fear of falling in varied outdoor environments, and rural settings outside of home areas. This may also include additional stakeholders or healthcare professionals that work within these locations.

A seminal study exploring perceptions of fall prevention education was presented by Miller (2010). Within Miller's qualitative study, participant perceptions of past interventions aimed at fall prevention and sustained independence levels were assessed. These have been based on many factors that result in falls, and demonstrate that there can be many ways to present risk of fall education based on older adult perceptions and the fact that there is not one program that singularly covers the entirety of fall prevention. Based on the health belief model it is inferred that if a participant's root motivation can be identified, more specific interventions can be developed henceforth, the greater the participation supporting a need for multiple interventions (Miller, 2010). In particular to this study was found that by naming an intervention something other than its explicit preventive purpose, perceived barriers, there was more likelihood of approaching cues to action and increased self-efficacy among participants (Miller, 2010). This was due to the discovery within the study revealing that participants do not believe they are at risk of

falling, minimizing a perceived susceptibility, and the stigma that may arise from naming a program for its preventive purpose. The qualitative approach demonstrated by Miller (2010) begins to understand the importance of participant perception and how they view current methods of education regarding FOF and its affect fall risk prevention. By identifying these requirements, characteristics, may successfully affect reaching greater segments of identified older adult populations independence levels within community and rural settings.

The health belief model, HBM, used as the theoretical basis for Miller's (2010) fall prevention education literature review supported loss prevention of function and independence in older adults. By mitigating the factor of balance impairment most closely associated with FOF and muscle weakness in understanding participant viewpoints, responses allowed for a more in depth explanation of their human health decision-making and subsequent behavior based on the expanded concepts or HBM constructs of perceived susceptibility, severity, benefits and barriers, cues to action and self-efficacy in regards to older adults perceptions of fall prevention education (Filiatrault et al., 2013; Nyman et al., 2013)

In assessing FOF and self-perception in older adults age 60 and above, more recent research discerned between those older adults who participated in physical activity programs and those who do not (da Silva et al., 2013). Isolating risk of falls and FOF as separate elements, researchers also demonstrated the interrelationship between them regarding the loss of identity and decreased independence in older adults (da Silva et al., 2013). There is still however, FOF as a psychosomatic phenomenon that underscores the

mind-body link that Vendrely et al. (2013) talks about in their study, informed by elements of HBM, perceived barriers, cues to action, self-efficacy, that implemented cognitive behavioral therapies to influence and sustain participation in physical activities that are relevant, specifically in a 58 year old chronically ill male with FOF and no prior history of falls.

As the relation between FOF and perceived barriers to enhance engagement in health behaviors that minimize the risk of falls in older adults is further investigated, recent research reveals, how increased participation in physical activity increases motivation and self-efficacy among older adults. However, the presence and quantification of FOF is also a reason for lack of participation in these very physical activity interventions the researchers are promoting (da Silva et al., 2013). Although recent studies begin to address older adult's self-perceptions, it is still measuring FOF quantitatively and attempting through physical activity interventions, to reduce FOF presence quantitatively without addressing why FOF has manifested within each older adult. Within the literature review, it is clear that FOF can be reduced through increased and sustained participation in older adults. What remains critical in regards to fall risk interventions and scales to measure the presence of FOF moving forward is that, one size or a cookie cutter approach to FOF reduction does not fit all (da Silva et al., 2013; Filiatrault et al. 2013).

Earlier research has described the development of quantitative scales that gave rise to the identification and noted presence of FOF within older adults or elderly as one may define by age 75 years and above (Filiatrault et al. 2013). It is also important to note

that implementation of these measurement tools became all too time consuming and evolved into more efficient and recent methods for determining FOF and risk of falls in both older adults who have experienced a fall and those who have not. Whether or not an intervention is successful in measuring FOF does not ensure a positive outcome in reducing fall risk in older adults and most importantly, increasing one's level of self-efficacy. Improved self-efficacy or falls efficacy is noted in overcoming a FOF in older adults but is not synonymous although interrelated as constructs with FOF (Nyman et al., 2013).

Fear of Falling as an Independent Risk Factor

Fear of falling and risk of falls are inseparable. That the measured presence of FOF impacts quality of life for older adults can no longer be understated. How future research addresses FOF will be of critical importance to stakeholders including healthcare and non-healthcare individuals. Recent studies begin to go beyond quantifying the presence of FOF as low self-efficacy to predict a greater risk of falls among gender and environment (Tennstedt et al., 1998) as well as for the purpose of intervention assignment to improve strength and balance in adults age 70 and older.

Recent research suggests that one size does not fit all in regards to risk of fall intervention. In determining the likelihood of falls within older adult populations, studies are now more informed as to a preventive approach due to the identification of separate cause related factors (Chang et al., 2016; Filiatrault et al., 2013; Park et al., 2011). As both incidence of falls and related expenditures continue to soar (CDC, 2014) it becomes more and more critical to pursue research that will study the factors of FOF, self-efficacy,

and balance confidence separately to gain better understanding of their interrelationship versus conveniently substituting one for the other as in past research when they are not the same (Filiatrault et. al., 2013; Vendrely et al., 2012). As the link between FOF and fall risk has been closely articulated (Hadjistravropolous, 2011), isolating FOF as an independent factor may further inform a better understanding within older adult populations that may be differentiated by age, gender, and or ethnicity.

The subject of FOF, its link to risk of falls, and interrelationship with an individual's self-efficacy, and balance confidence have been researched for some time and most frequently regarding adults aged 70 and older. As one's health status as well as strength loss is not contingent on old age 70 years and older, understanding FOF through the perceptions of older adults who are younger than 70 may further inform risk of fall reduction interventions that have realized success once FOF has been recognized (Marks, 2014; Yanagita et al., 2014). Early detection and education regarding FOF may further enhance prevention of falls through recognition of perceived susceptibilities, perceived severities, and understanding cues to action resulting in sustainable participation (Filiatrault et al., 2013; Vendrely et al., 2012). In fact, recent studies have noted that within populations of community dwelling older adults, FOF was present in more than two thirds who had experienced at least one fall but present in half the population who had not yet experienced a fall (Mendes da Costa et al., 2012). With this evidence in mind, further FOF research may hopefully create pathways that reinforce pro-active steps illustrated in Figure 2, versus a more negative and downward ascension due to a measured only presence of FOF that has been substantiated throughout research that

studied and quantified FOF in older adults above the age of 70 years (Filiatrault et al., 2013; Nyman et al., 2013; Zijlstra et al., 2012).

Elements of the HBM emerge throughout research studies that set an aim and focus to better isolate and understand FOF as a separate more palpable and real variable. Earlier studies have revealed outcomes stressing the need that for optimal risk of fall reduction, a multifactorial approach may further prevent the social and physical erosion documented in the lives of older adults chronicled (Zijlstra et al., 2013). Studies reveal a deterioration in levels of confidence, activity participation, and ultimately independence in older adults. However, overwhelming and positive outcomes are not universal (Lawson, 2013).

The HBM has enabled researchers with a framework to move beyond just the prevention of identified health problems. A better understanding of what older adult perceptions of health problems are, how older adults may perceive FOF, may surely inform how to specifically approach an individual's FOF once it is determined.

The inference of elements of HBM emerge within research throughout the literature review for this study. The HBM constructs of perceived susceptibility, perceived severity, and self-efficacy were prevalent in both qualitative and quantitative studies that approach a cognitive behavioral shift in the older adults studied as a means to risk of fall reduction (Vendrely et al., 2013; Calhoun et al., 2011; Filiatrault et al., 2013). Earlier research reveals elements of HBM pertaining to the identification of factors that enhance risk of falls, stressing a need for more multifactorial and non-medical interventions. The multifaceted intervention provided favorable outcomes in adult

populations age 70 and older, addressing isolated health status factors to reduce the incidence of falls (Tinetti et al., 1994). However, research did not take into account older adult perceptions or more cognitive behavioral interventions that specifically studied adults with a strong sense of self-efficacy versus those adults with a weaker sense of self-efficacy.

As research regarding risk of falls, FOF, progresses with the inference of HBM elements, self-efficacy, a clear baseline can be observed that demonstrates a successful integration of health behavior change items. These items described as guided instruction aimed to increase older adult self-efficacy towards fall risk problems as tasks to be mastered, overcoming barriers, to further develop interest in the activities in which they participate, form a stronger sense of commitment to their interests, cues to action, activities, and recover more quickly from set-backs and disappointments (Zijlstra et al., 2013). The success of non-medical interventions such as a matter of balance, reflected within the literature, demonstrate a clear integration of HBM elements as now more fundamental towards the improvement of older adult self-efficacy necessary for activity sustainability and fall risk reduction overtime (Vendrely et al., 2013).

Although the major body of FOF research has been quantitative and focused on adult populations 70 years and older, elements of HBM clearly emerge towards helping to reduce challenging task avoidance, perceived barriers; enhanced belief in one's capabilities beyond difficult tasks and situations, self-efficacy, improving focus away from personal failings, negative outcomes, cues to action; reduce loss of self-confidence,

self-efficacy. The body of research focused on adults age 70 and older may also better inform studies addressing adult populations younger than age 70 (Scheffer et al., 2008).

As the health status of adults age 50 and above continues to deteriorate, chronic physical conditions such as obesity, diabetes, cardiometabolic syndrome, increased medication dosage, risk of falls, FOF may also increase according to research (Nyman et al., 2013). Although successful interventions such as the modified falls efficacy scale and dynamic gate index may assist in identifying FOF and fall risk reduction through quantitative metrics, these interventions do not specifically address FOF through the participant lens as a means of interpreting one's self-efficacy levels, necessary in overcoming fears and shifting individual activity behavior over time versus in a group setting (Vendrely et al., 2013; Tennstedt et al., 1998). In a qualitative study of older adult perceptions of clinical fall prevention programs, researchers sought to better understand reasons why subjects may participate in fall prevention programs and what they may have to overcome to do so. With the integration of HBM elements, perceived barriers, perceived benefits, and cues to action, researchers discovered similarities in those subjects who would choose to participate and those who would not (Calhoun et al., 2011). Similar to the studies of Tennstedt et al., (1998) and Vendrely et al., (2013) it was ultimately noted that group risk reduction interventions also be constructed to integrate elements that address individual behavior perceptions as well as social determinants of health informed through the HBM (Calhoun et al., 2011).

Similarities in older adult perceived susceptibilities, perceived severities, perceived barriers, perceived benefits, cues to action, and self-efficacy may be present

within research. However, FOF, as revealed within the literature review of both qualitative and quantitative studies informed by HBM, is highly personalized.

Summary and Conclusions

In summary, FOF is a complex-phenomena inseparably linked to risk of falls that impacts the quality of life in older adults. Throughout the literature review it remained clear that FOF has been highlighted and quantitatively measured in research as well as investigating the risk factors of FOF in older adults age 70 and older. Few if any studies have qualitatively researched FOF and participant perceptions as well as FOF as a separate concept (Filiatrault et al., 2013) and in those older adult populations who have not yet experienced a fall (Vellas et al., 1997; Nyman et al., 2013) and or differentiated by gender (Chang et al., 2016). Understanding FOF as a separate concept through the perceptions of older adults under the age of 70 may impact how healthcare and non-healthcare care givers is important. It is also important to emphasize how individual's approach and optimize non-medical interventions and more informed discussion that are specific to sustaining quality of life in older adults. More accurate knowledge of participant perceptions versus those of only the practitioner and statistics may help to provide a clearer view regarding current interaction allowing for more constant comparison, education fall literacy and prevention enhancement at all levels.

Within Chapter 2, FOF was presented through a literature review that focused on the current understanding of FOF, informed by the elements of HBM, and its impact on risk of falls and life quality in older adults. Within the literature review, it has also been determined that FOF effects older adults whether they have experienced a fall or not and

therefore as a separate concept, FOF may also be transient or permanent depending on the individual (Park et al., 2011). Despite the number of interventions designed to minimize the risk of falls in older adults, both incidence and expenditure have alarmingly increased (CDC, 2014). Researchers have focused on falls among senior populations and how the effects of chronic disease, sedentary lifestyle, and inactivity increase fall risk. These factors are linked to FOF but are not restricted to only adult populations of 70 years and older (Vendrely et al., 2012). This literature review has revealed a lack of research regarding FOF and fall risk among older adults age 50 and older which is why it was important to pursue this study.

Within the chapter to follow, details regarding the qualitative descriptive research design and rationale for this study on perceptions of fear of falling in older adults will be presented. The information presented will also include the role of the researcher, methodology, procedure for the study, elements of trustworthiness, ethical procedures, and summary.

Chapter 3: Research Method

Introduction

The purpose of this study was to examine perceptions of FOF in older adults. Included in this chapter are details regarding the research design as well as the role of the researcher. The methodology section includes descriptions of the participant selection process, site, and sampling methods. Procedures for the pilot study, instruments for the study, trustworthiness, procedures concerning ethics, as well as a research methodology summary are included within this chapter.

Research Design and Rationale

Three qualitative research questions were derived from the problem statement and purpose of this study to describe perceptions of FOF in older adults.

RQ1: What are the perceptions of older adults toward fear of falling?

RQ2: What are older adults' perceptions of contributing factors in their fear of falling?

RQ3: How do older adults perceive that fear of falling has affected their independence levels?

The research questions were further organized to align with specific survey questions related to the conceptual framework and prominent themes of this study based on the elements of the HBM. The central phenomenon of interest for this study was older adults and risk of falling. The central focus was older adults' perceptions of FOF and how FOF may impact the risk of falling. Understanding FOF and its impact on risk of falls may be described as a joint responsibility shared among healthcare professionals, family

members, friends, and older adults themselves, as this behavior is not isolated to any specific locale (CDC, 2014; Nyman et al., 2013). It has been observed that FOF may arise at any time for older adults on a transient or more permanent basis, whether they have experienced a fall or not (Chang et al., 2016; Park et al., 2011). That FOF might randomly occur may also inform the notion that information concerning older adults and FOF may not always originate from the practitioner side or perspective as well (Vendrely et al., 2012). Involving older adults as stakeholders and studying their perceptions of FOF may better prepare all stakeholders—professionals, laypersons, and older adults—to achieve a better understanding of FOF and the factors that may impact related behavior.

For this study, I used the research tradition of descriptive phenomenology. Qualitative descriptive phenomenological research has become familiar and is frequently aligned with theoretical frameworks and behavioral theory in healthcare studies (Colorafi & Evans, 2016). Although lacking in previous traditional qualitative methods, qualitative descriptive phenomenology has become more and more used (Sandalowski & Leeman, 2012). Due to the accuracy of the data accessed in public health studies, qualitative descriptive research is a viable approach for studying perceptions in regard to health-related phenomena (Colorafi & Evans, 2016).

When one is seeking to study and understand perceptions of FOF in older adults that may not be simply quantified, a qualitative approach may provide for clearer understanding. Methods texts have revealed that qualitative analysis helps to provide broader and more meaningful analysis of collected data (Colorafi & Evans, 2016). The qualitative methods of phenomenology (Nyman et al., 2013), case study (Vendrely et al.,

2012), and ethnography (Chang et al., 2016) have been used by researchers seeking to better understand FOF as a factor that impacts the risk of falls in older adults. Qualitative grounded theory and narrative approaches are based on more traditional and defined rules, a qualitative descriptive approach allows for a broader and more flexible lens to understand the problem being observed and researched for healthcare studies (Colorafi & Evans, 2016). The qualitative descriptive approach can be noted within the elements of qualitative descriptive analysis.

The elements of the qualitative descriptive method are less defined than those of more traditional qualitative approaches. However, a qualitative descriptive design allows the researcher a more proximal attachment to data as well as more flexibility not present within the traditions of qualitative research (Sandelowski, 2010). I have listed the major elements of qualitative phenomenological studies as described by Colorafi and Evans (2016) in Table 2.

The theoretical design of qualitative phenomenological descriptive research allows for flexibility within a study while facilitating a broad platform to present data as observed (Colorafi & Evans, 2016). Ultimately, a qualitative descriptive method provides opportunity for the researcher to present trustworthy and authentic data that, according to Colorafi and Evans (2016), achieve the levels of objectivity, dependability, credibility, transferability, and application apparent in qualitative descriptive research of quality. For exploring perceptions of FOF in older adults, a qualitative descriptive method best fit this study.

Table 2

Qualitative descriptive design elements

Design element	Design specifics
Theory	Flexibility in theory selection, application, philosophy
Sample strategy	Variability in purposive technique choice
Data collection	Multiple method utilization (e.g., observations, semi-structured interviews, documentation)
Data analysis	Content analysis, low-level interpretation, descriptive statistical analysis (e.g., NVivo works well)
Data re-presentation	A descriptive outcome information summary organized to fit the data

Colorafi and Evans (2016).

Role of the Researcher

In this qualitative descriptive study, my role as the researcher was that of the primary investigator or research instrument, in that I functioned as an integral element of the research process. In addition to acting as an observer, the researcher in this type of study must serve as the instrument (Patton, 2015) and must be deeply involved in study design, data collection/interviewing, data analysis/transcription, analytic decisions regarding emerging themes, and ensuring accurate reporting in a real-time manner (Sanjari et al., 2014).

Understanding and managing bias to avoid error and maintain data validity required a recognized qualitative approach for data collection and coding analysis to be used (Patton, 2015).

To manage bias within this study, I applied the strategy defined in Collaizzi's seven-step process for qualitative phenomenological descriptive analysis (Shoshan, 2012). Collaizzi's process of data review underscores the need for thorough

understanding, identification, and constant comparison of emerging themes, as well as their organization and accurate description in relation to any previously formed thoughts and ideas. A researcher's pre-existing thoughts and ideas must be placed to the side so as to not corrupt the newly collected data (Patton, 2015). To further ensure the integrity of the collected data, I used NVivo 10, computer-assisted qualitative data analysis software (CAQDAS; Miles et al., 2014). NVivo 10 software places emphasis within its architecture on the literature review that also includes all readings, notes, and data backup to be stored, arranged, and transferable into any required format ensuring thorough analysis, that is both transparent, and transportable.

In the effort to ensure the fidelity and integrity of this study, I completed human-subjects training with the National Institute of Health (NIH) to further substantiate beneficence and respect for this study's participants (see Appendix D). There were no anticipated ethical dilemmas related to the research instrument, as the study subjects were able to withdraw at any time during the interview process. A $25 Starbucks gift card was provided to each participant completing the interview.

Methodology

Participant Selection Logic

An older adult population of individuals 60 years of age and older was identified for this study. A recruitment flyer was posted on social media sites (e.g., Twitter, LinkedIn). In addition, a one page study recruitment flyer was posted through the Faculty Center for Teacher Excellence at Adelphi University, where I am an adjunct professor in the College of Nursing and Public Health, in an effort to recruit any staff or faculty

member age 60 years or older who might qualify for participation. Lastly, with granted permission, there were several area wellness centers affiliated with Winthrop Hospital and health system located in New York and Boston.

Participants were selected or obtained through the use of a purposive sampling method. This specific strategy was selected based on the characteristics of older adults age 60 and over and the objective of this study of perceptions of FOF in older adults. This method assists researchers in better managing bias while helping to enhance the credibility and manageability of collected data. The credibility and manageability of data supported within this method better enhanced alignment of the elements of study purpose, interview questions, and information to be synthesized in demonstrating a purposive sampling (Patton, 2015).

As there are no specific metrics for calculating sample size within qualitative analysis (Malterud et al., 2016), the sample size in qualitative studies varies based on the strategies used and noted constraints (Patton, 2015). My objective was to recruit between 12 and 21 adults age 60 years and older who were working full time, were working part time, or had retired, and who had either a history or no prior history of falls. Criteria for exclusion from this study applied to older adults who were institutionalized, were over 78 years of age, were professionals working in the field of public health, or had only a prior history of falls. The majority for falls research is centric to older adult populations 70 years and older (Filiatraut et al., 2013; Nyman et al., 2013; Zijlstra et al., 2012). A future study might seek to compare perceptions of FOF within gender groups, specific age, education level, ethnicity, and socio-economic status.

Upon receiving approval to conduct the study from the Institutional Review Board (IRB) at Walden University, I took steps to identify and reach out to eligible participants for enrollment in the study through both online and hard-copy announcements, which included an explanation of study and my contact information (Appendix A). Within the IRB application, I included a full explanation of the study process and procedure. The focus and aim of this study were demonstrated through a rigorous analysis of the collected data to reveal its transparency and integrity through the achievement of saturation (Patton, 2015).

Qualitative studies have demonstrated success within public health and the researched problems that have been investigated (Colorafi & Evans, 2016). In recent qualitative studies, researchers have demonstrated better outcomes, more specific participant focus, and realized sample size, through defined sample characteristics, recognized framework theory, interview integrity, and data analysis (Malterud et al., 2016).

Data Collection and Instrumentation

As the researcher, I was the primary investigator and instrument for this study. Through semi-structured participant interviews, demographic questions (Appendix B), and an interview protocol instrument developed for this study (Appendix C), consistency and integrity were maintained throughout the data collection process. To reinforce instrument validity, subject-matter experts (SMEs) from public health, my dissertation committee, and risk-of-fall researchers reviewed all interview questions for scope and

alignment with the problem statement, research questions, and the study content before final approval was given.

The interview instrument consisted of a series of open-ended questions designed to align with the HBM and the three research questions. The interview was broken into sections. The first section covered the participant's individual perceptions concerning FOF and how this may pertain to one's susceptibility and severities. The second part of the interview covered participants' perceptions of FOF and contributing factors in their FOF as it might relate to benefits or barriers. The third and concluding part of the interview dealt with the participants' perceptions of FOF as it affected their independence levels related to cues to action and self-efficacy. The alignment of the interview questions with the HBM and research questions is illustrated in Table 3.

Table 3

Alignment of the Interview Questions With HBM and Research Questions

Interview questions	HBM	Research questions
IQ 1	Susceptibility	RQ 1
IQ 2	Susceptibility	RQ 1
IQ 3	Severity	RQ 1
IQ 4	Severity	RQ 1
IQ 5	Benefits	RQ 2
IQ 6	Benefits	RQ 2
IQ 7	Barriers	RQ 2
IQ 8	Barriers	RQ 2
IQ 9	Action Cues	RQ 3
IQ 10	Action Cues	RQ 3
IQ 11	Self-efficacy	RQ 3
IQ 12	Self-efficacy	RQ 3

Approval for this study from the Walden University IRB was received, and recruitment of study subjects began. Outreach and recruitment of potential research

participants using the study announcement (Appendix A) both on campus and throughout centers within the community commenced. All recruited participants completed an informed consent document prior to commencement of the interview.

Procedures for Pilot Study

To determine the appropriateness of the developed interview questions, a pilot study was conducted to test and determine whether the data obtained might answer the research questions while allowing for flexibility should the need for adjustments be observed prior to moving forward in the study (Colorafi & Evans, 2016). The total number of participants for this pilot study was two. With approval from the Walden University IRB, recruitment on campus took place and expanded using the main study recruitment process to secure pilot participation. The recruitment study announcement (Appendix A) was used along with the informed consent document, as in the main study. All data collected and analyzed within the pilot study were kept separate from the main study and are reported within Chapter 4.

Procedures for Recruitment, Participation, and Data Collection

Subject recruitment commenced once full approval from the Walden University IRB had been received and dissemination of the study announcement began (Appendix A). The outreach for participant recruitment took place on campus and at retail wellness centers within the community, as well as online within the appropriate Adelphi University forums and pertinent social media platforms (i.e., Twitter and LinkedIn) using the same study announcement (Appendix A). As both the researcher and research instrument, I had a fiduciary responsibility to establish a level of confidentiality with each

participant, which was important regarding data collected within my study (Sanjari, 2014). An associated stigma of FOF has been included in prior FOF and risk-of-fall research (Vendrely et al., 2012; Nyman et al., 2013). Therefore, levels of privacy were consistently maintained.

Levels of confidence were continually maintained within the research-subject relationship as details of data collection, how data were collected, the type of data collected, and the ultimate application of data were disclosed (Sanjari, 2014). On the informed consent form, I described the study, its purpose, and my identity, and I emphasized that there would be no compensation for myself or the participants for involvement in the study. Because participation in this study was completely voluntary, the manner in which the importance of the participant role was conveyed regarding the future of healthcare services and how the study might enhance prevention and therefore quality through improved stakeholder literacy regarding FOF was of utmost importance in gaining the subjects' informed consent.

Data Analysis Plan

In analyzing the data collected for this qualitative descriptive study, I used the strategy defined in Colaizzi's seven steps for qualitative descriptive phenomenological analysis (Shoshan, 2012). This process of data review underscored the need for thorough understanding, identification, and constant comparison of emerging themes by reading and rereading participant transcripts. Colaizzi's seven-step strategy had been successfully implemented in past and recent qualitative descriptive studies in health science research (Sadati et al., 2014). The use of Colaizzi's seven-step process demanded a granular

approach in analyzing the phenomenon of FOF between the researcher as the instrument and participants whose perceptions of FOF were listened to and depicted in Table 4.

Table 4

Colaizzi's Seven-Step Process for Data Analysis in Qualitative Descriptive Research

Step	Action	Process of analysis
1	Read, reread	Participant transcripts for compiling content and understanding
2	Extracting	Identifying the most important participant statements
3	Formulation	What does the data begin to demonstrate, meanings
4	Categories	Organize themes emerging into clusters for validation
5	Describe	Constant, repetitive comparison of the data
6	Structure	Begin to construct the phenomenon within the data
7	Validation	Data collected, sorted, reviewed by the researcher for continued comparison and adjustments based on participant transcripts

Sadati et al., (2014)

Issues of Trustworthiness

Objectivity

The researcher's objectivity within this study were clearly stated denoting bias as well as defining the process of data collection, analysis, thorough understanding, and creating a clear path for all interested stakeholders to follow within Colaizzi's seven step process. Objectivity, also referred to as conformability (Colorafi & Evans, 2016) whereby this researcher to further enhance the confirmability of this study's data used NVivo 10 CAQDAS. The use of NVivo 10 within this study allowed for increased data management, therefore enhancing the rigor of the analysis process as well as the fidelity of the data through a repetitive and duplicative framework of the platform.

Dependability

The element of dependability has been provided within this study by ensuring the repeatability of the data collection and analysis process for all participants. The reliability of this study's data was underscored with the use of the NVivo 10 CAQDAS for security as well as rigors of consistency within the data collection instrument (Table 3) reinforced within Colaizzi's seven step process for qualitative descriptive analysis.

Credibility

Credibility within this study was ensured with the use of steps defined within Colaizzi's process of data collection and analysis that provides for robust or, data that is dense, can be affirmed by other stakeholders, descriptively granular, and align with the HBM for this study (Colorafi & Evans, 2016). The element of credibility was reinforced by the fact that the researcher has completed the National Institute of Health Office of Extramural Research (Appendix C) protecting human subject's certification. To gain trust, this researcher provided and disclosed all study information to subjects establishing full transparency.

Transferability

In order to maintain transferability in this study, all data was collected and mined with the purpose that may see it influence the continuation of further research and add to the literature bank. Adding to this study's external validity, all subject detail, subject population and issues that may disrupt transferability, and relation to HBM with data correlation for future research regarding perceptions of FOF in older adults were ensured.

Ethical Procedures

The researcher is involved with Solera Health Networks whose main and primary work is with the National Diabetes Prevention Program promulgated through the CDC. In addition, the researcher is a student enrolled in the PhD Health Services program at Walden University. Once formal IRB application was approved, inclusion of the approval code was included within all participant's recruitment and outreach documents. These materials included the subject voluntary participation announcement and any social media content distributed. Details of participant voluntary engagement were included during their participation in a semi-structured interview that lasted approximately 45-60 minutes in duration. As their participation was completely voluntary, without cash or product incentive, participants were free to disengage at any time during the study. It was determined that this study included no inherent risk. In considering the applicability of this study, may be its accessibility to both stakeholders in healthcare as well as community and family members where relevant. An ultimate outcome for this researcher will be an achieved level of inspiration within other healthcare professionals to engage in continuing research that focuses on and isolates FOF as a separate factor impacting the risk of falls in older adults.

Summary

In summary, the purpose of the proposed study was to understand perceptions of FOF in older adults. This chapter detailed the research design and rationale, role of the researcher, methodology, participation selection logic, instrumentation, explained procedures for the pilot study, recruitment, participation, data collection, data analysis,

issue of trustworthiness, and ethical procedures. Fear of falling is an important factor that impacts risk of falls in older adults. Studying fear of falling as an isolated factor and better understanding its effect on fall risk, and behaviors in older adults is integral to meliorating the incidence of falls. A study of perceptions of fear of falling in older adults may inform insights for healthcare services about fear of falling causes contributing to positive social change in the form of vocabulary and dialogue specifically aimed at older adults that may be delivered by non-health professionals. Once approval was received from the Walden University IRB was received, the data collection for this study was underway.

Chapter 4: Results

Introduction

The purpose of this qualitative descriptive phenomenological study was to investigate the problem of FOF and its adverse effect on independence levels by examining and describing perceptions of FOF in adults aged 60 and above. Within this chapter, I have included an overview of key observations of older adults' perceptions of FOF and their views on their independence levels that led to the conclusions in Chapter 5. Within this chapter are provided descriptions of the pilot study, research setting, demographics, data collection and analysis, evidence of trustworthiness, and study results. The following chapter provides final discussions, conclusions, and recommendations for social change.

Pilot Study

As a trial run for the main study, a pilot study was conducted. The pilot study allowed for practice of the study process and careful observation as to whether adjustments within the main study design and methods were required (Dakko, 2016). The pilot study followed Walden University IRB approval on October 24, 2017. The number of participants sought for the pilot study was based on a calculation of 10% to 20% of the sample size for the main study. Two participants were recruited using the study flyer (Appendix A) and were interviewed using the interview guide (Appendix C). The participants in the pilot study were one woman and one man, both age 60 or older, who were randomly selected.

The pilot study enhanced my mindfulness and attentiveness regarding issues related to participant recruitment and how I conducted myself as a researcher, helping to ensure that I was always consciously aware of the need to remove my bias of thought. Additionally, it was helpful in indicating whether the interview questions required any modification. Interviews for the pilot study averaged 30 to 45 minutes each and resulted in transcripts of 12-18 pages of robust, rich, descriptive content. Each participant received a Starbucks gift card valued at $25. The pilot study was conducted as independent from the main study, and none of the data collected during the pilot are reflected/included within the dissertation. The pilot study outcomes supported the efficacy of the interview guide as well as participant recruitment and interview steps defined and approved within the Walden University IRB application.

Setting of the Study

The collection of all data for this phenomenological, descriptive, qualitative study took place in November and December 2017. Participants for the study resided along the east coast of the United States. Each participant in this study was assigned an identifier from Participant 1 to Participant 16. Each study participant has been identified by a file number, and data for each participant reside in a password-protected file. Each participant interview was conducted face-to-face in a location convenient for the participant (e.g., a conference or meeting room at a public library) and was audio recorded. There were no extenuating conditions that affected any of the participants during the time of this study. To avoid any disruption and prevent discrepancies, all interviews were conducted and recorded in exactly the same manner.

For the purpose of maintaining and organizing my schedule with the study participants, a password-protected computer file calendar with interview dates, locations, times, and contact information was kept for accuracy and to maintain confidentiality. The participant interviews all took place between 8:00 a.m. and 4:00 p.m. Eastern Standard Time. All study participants were able to maintain their original interview times and locations. This prevented the need for any rescheduling or additional participant recruitment due to cancellations. Each participating subject received a Starbucks gift card valued at $25.

Demographics

The demographics and characteristics of the 16 participants that I gathered for this study included age, gender, race, highest level of education completed, occupation, and whether or not they had experienced a fall within the past year. Table 5 includes each of these characteristics.

Table 5

Characteristics of the Participants

#	Age	Gender	Race	Education level	Occupation	Falls/past year
1	63	M	Caucasian	College	Computer Tech	Y
2	68	F	Hispanic	High School	Hospitality	N
3	66	F	Caucasian	Junior College	Real Estate	N
4	70	M	Caucasian	Law School	Attorney	Y
5	67	F	Caucasian	Graduate School	Finance	N
6	60	F	Caucasian	College	Banking	Y
7	65	M	Caucasian	High School	Railroad	N
8	62	M	Caucasian	High School	Electrician	Y
9	61	M	Caucasian	High School	Construction	Y
10	67	M	Caucasian	High School	Plumbing	N
11	65	M	Caucasian	High School	Utility Contracts	Y

12	76	M	Caucasian	Graduate School	Education	Y
13	61	F	Caucasian	Doctorate	Psychology	N
14	64	F	African American	Graduate School	Education	Y
15	62	F	Caucasian	High School	Clerical	Y
16	64	F	Caucasian	High School	Retail	N

Data Collection

Interviews

All study data were collected by me from 16 adults between the ages of 60 and 76 who might or might have not experienced a fall with the past year. The face-to-face interviews for all participants from the eastern United States included a welcome and self-introduction. I described the purpose of the study, reviewed the consent form for accuracy, and expressed overall thanks and appreciation for their participation. Although the interview procedure was described within the participant consent form, each participant was instructed regarding the interview steps, including the questions that would be asked by me using the interview guide in Appendix C, the length of the interview (between 45 and 60 minutes), and the recording of the interview for transcription and content-accuracy purposes.

All interviews were recorded on either Smart Recorder by Roe Mobile Development or Rev by rev.com. The interview guide was validated by SMEs in public health and by my dissertation committee members for scope and alignment. Participants' identities were protected by using numbers from 1 to 16 and in the order each interview was completed. Each interview was marked with the date and specific time and was password protected. Following the interviews, I transcribed the recordings into Word

documents identified only by participant numbers (1 through 16). There were no follow-up interactions or discourse with the participants. To protect all participants' identities, in addition to a participant number, I assigned a unique number to each participant that can be viewed in Table 6. All transcript Word files and field notes for this study and composed by me, were organized utilizing NVivo 10 software.

Table 6

Participant Identifiers

#	Unique number identifier
1	5269-50042
2	9703-59742
3	2584-66637
4	4158-55289
5	5035-85799
6	0612-70914
7	TC0326182135
8	TC0437293113
9	TC0094764357
10	TC0178668765
11	TC0690669774
12	TC0996160623
13	TC0875251714
14	TC0741800237
15	TC0597441295
16	TC1002046112

Data Analysis

Qualitative descriptive research has become familiar and is frequently aligned with theoretical frameworks and behavioral theory in healthcare studies, where it is used more and more widely. Within this study, participants all agreed to complete recorded interviews. All of these interviews were audiotaped, transcribed word for word, and

reread for accuracy according to Colaizzi's seven-step process for data analysis in qualitative descriptive research.

The data analysis plan for this study used Colaizzi's seven steps, which underscore the need for thorough understanding, identification, and constant comparison of emerging themes by reading and rereading from transcripts. After the transcripts had been reread, they were stored in the NVivo 10 CAQDAS platform. NVivo 10 in addition to manual coding techniques within Colaizzi's seven-step process demonstrated alignment between participant experiences that related to perceptions of FOF in older adults. Throughout the data collection process, original data were analyzed from participant statements, categories, and themes. The NVivo 10 software within its architecture allowed for both greater transparency and enhanced transferability of raw data within this study, further ensuring integrity.

In *Table 7*, examples of data transferred and process organized without discrepancy within NVivo 10 software can be observed from participant statements, categories, and themes.

Table 7

Examples of Key Participant Statements, Categories, and Themes

Key participant statement	Themes	Categories
#6 - 0612-70914: "And yes, I have fallen before, about a year ago. I got up from the couch and my legs just gave out. I couldn't understand what just happened. It made me think of my mother, she has osteoporosis. Following the fall I saw a physician who diagnosed that I also have osteoporosis. The physical therapist I saw afterwards said a lack of leg strength affected my balance, which resulted my fall."	Traumatic health incident Taking preventive steps	Contributing factors FOF FOF affecting independence levels

#1 - 9703-50042: "Well I am overweight, I have cholesterol issues, gout, and on medication. My health seems to be deteriorating as I grow into my golden years. Well maybe 5 or 6 years ago, I started to—every winter I would take a good fall. So, it was probably 5 or 6 years ago that I started to be more paranoid during winter months. As I work remotely, I hardly go out anymore in the winter."	Loss of health Fall related aging Activity limiting ADL avoidance Loss of confidence	Contributing factors FOF FOF affecting independence Perceptions of older adults FOF
#4 - 4158-55289: "The fact that I fell down the steps meant that it's possible it could happen to me. It's a realization that I should have so now I think about it and when I say fear of falling, I say thinking about falling but it's a fear. It makes sense to me. I happened. It would happen again."	Negative health event Self-protection	Contributing factors FOF
#8 - TC0437293113: "If I'm standing, I constantly just start going backwards. I've come close to going down a flight of stairs. I think of falling. I got this thing around my neck. Fall and call for an ambulance. So, I always have that fear, especially walking up stairs and down stairs. That's a very real fear for me."	Not feeling safe Living with help Constant anxiety Depending on others ADL avoidance	Contributing factors FOF Perceptions of FOF; affecting independence levels
#9 - TC0094764357: "Lately, I've been…well with my knee replacement, I've been having issues, okay and I stumble a bit. I've physically fallen, I stumble a bit and I regain myself but I can't see it getting any better at this point in my life. I try to strengthen my legs, I know how to fall with my hands forward. My biggest fear is falling and hitting my head."	Don't feel safe Loss of health Taking preventive steps	Perceptions of FOF Contributing factors FOF Affecting independence
#10 - TC0178668765: "But I hold onto the rail because I know if I fall, with two knee replacements and the foot, I think of, I'm gonna fracture my skull. I have steps and fear of falling for me is going down steps. I'm 67. I'm not sure footed like I used to be when I was younger. I never thought at 67 I'd say I avoid going down steps now."	Not feeling safe Loss of health Getting older ADL avoidance	Perceptions of FOF Contributing factors FOF Affecting independence
#11 - TC0690669774: "As I said, I fell off a truck a little over a year ago. I landed squarely on my side. To that moment I was airborne, I said what's going to happen? When I came down, it was a bone jarring fall. When I came out	Traumatic health incident Becoming mindful	Contributing factors FOF Perceptions of FOF

unscathed, I said, I feel like Superman. Not that it won't ever happen, that I won't ever get hurt, but that fortified my feeling that I was pretty strong, bone wise and muscle wise. Had I landed on my head, that may have been a different issue."		
#14 - TC0741800237: "For me, the fear of falling is something for myself that came over me. It's more or less in the same category of being depressed because it was never, ever there prior to my accident, so it's in my mind everyday now that I could fall and I may not have control over the fall. That's my fear. My health before I fell was very good. It was excellent to me and I was like Superwoman. I thought I could do anything."	Loss of confidence Traumatic health incident Not feeling safe	Perceptions of FOF Contributing factors FOF

Evidence of Trustworthiness

Objectivity

I substantiated objectivity within this study by clearly stating my bias as well as conducting a pilot study that reinforced the importance of the epoche process and its difficulty in conducting phenomenological inquiry. A clear path was created for all interested stakeholders to follow within Colaizzi's seven-step process. To further enhance the objectivity or conformability, NVivo 10 CAQDAS was used for increased data management, analytical process, and fidelity of the data through a repetitive and duplicative framework of the platform.

Dependability

The element of dependability within this study was ensured by the repeatability of data collection and analysis process for all participants. Repeatability was demonstrated within the data collection instrument (Table 3) reinforced within Colaizzi's seven-step

process for qualitative descriptive analysis and underscored with the use of NVivo 10 CAQDAS for security.

Credibility

Credibility was established within this study through the use of steps defined within Colaizzi's process and detailed on the Walden University approved IRB application. The data collection process and analysis within this study provided for robust data, or data that were dense, descriptively granular, and aligned with the HBM. Trustworthiness was further enhanced through my completion of the NIH Office of Extramural Research (Appendix D) protecting human subjects certification as well as providing and disclosing all study information to subjects for full transparency.

Transferability

Transferability was maintained within the study through the collection and mining of data to the extent that may influence future researchers to expand upon the need for further research investigating FOF in adult populations. Participants voluntarily took part in face-to-face, semistructured interviews with open-ended questions, through which I collected perceptions of FOF in older adults. This study underscores current literature that indicates the need to qualitatively research FOF and participant perceptions as a separate concept in adult populations whose members have not yet experienced a fall or studies that have focused on a specific participant gender.

An important objective of this study will be its accessibility to both stakeholders in healthcare as well as community and family members where relevant. Ultimately, it is

my hope that other healthcare professionals will be inspired to engage in ongoing research and questioning that focuses on and isolates FOF as a separate factor impacting the risk of falls in older adults.

Results of the Study

The health belief model, HBM, through its elements informed the relational understanding of this study's research questions as well as themes that emerged through the inductive discovery concerning the viewpoints of older adults and their perceptions of FOF. The key HBM concepts central to the research include perceived susceptibility, severity, benefits, barriers, cues to action and self-efficacy. The use of HBM to inform qualitative studies investigating fall risk in women and men was also previously expanded and integrated cognitive behavioral therapy, CBT, within fall risk prevention research. Depicted in Figure 3, the study's results are organized based on the alignment of research questions established within the theoretical foundation of the HBM elements, the relational understanding of this study's research questions, and themes that emerged through participant interviews concerning the view points and FOF perceptions of older adults.

In regards to participant percentages, 50% reported a high school education, 6% reported an associate degree, 13% a bachelor's degree, 18% completed graduate school, and13% had doctoral and terminal degrees. Also, 6% of participants within this randomly purposeful selected group utilized English as a second language. 94% of participants spoke English as their primary language. Regarding participant health status, 56% of the

those interviewed had experienced at least one fall in the last year. 31% of the participants had been diagnosed with a chronic disease condition, e.g. diabetes, osteoporosis, within the past five years. Finally, retirement was either being thought about or seriously considered in 56% of this study's participant population.

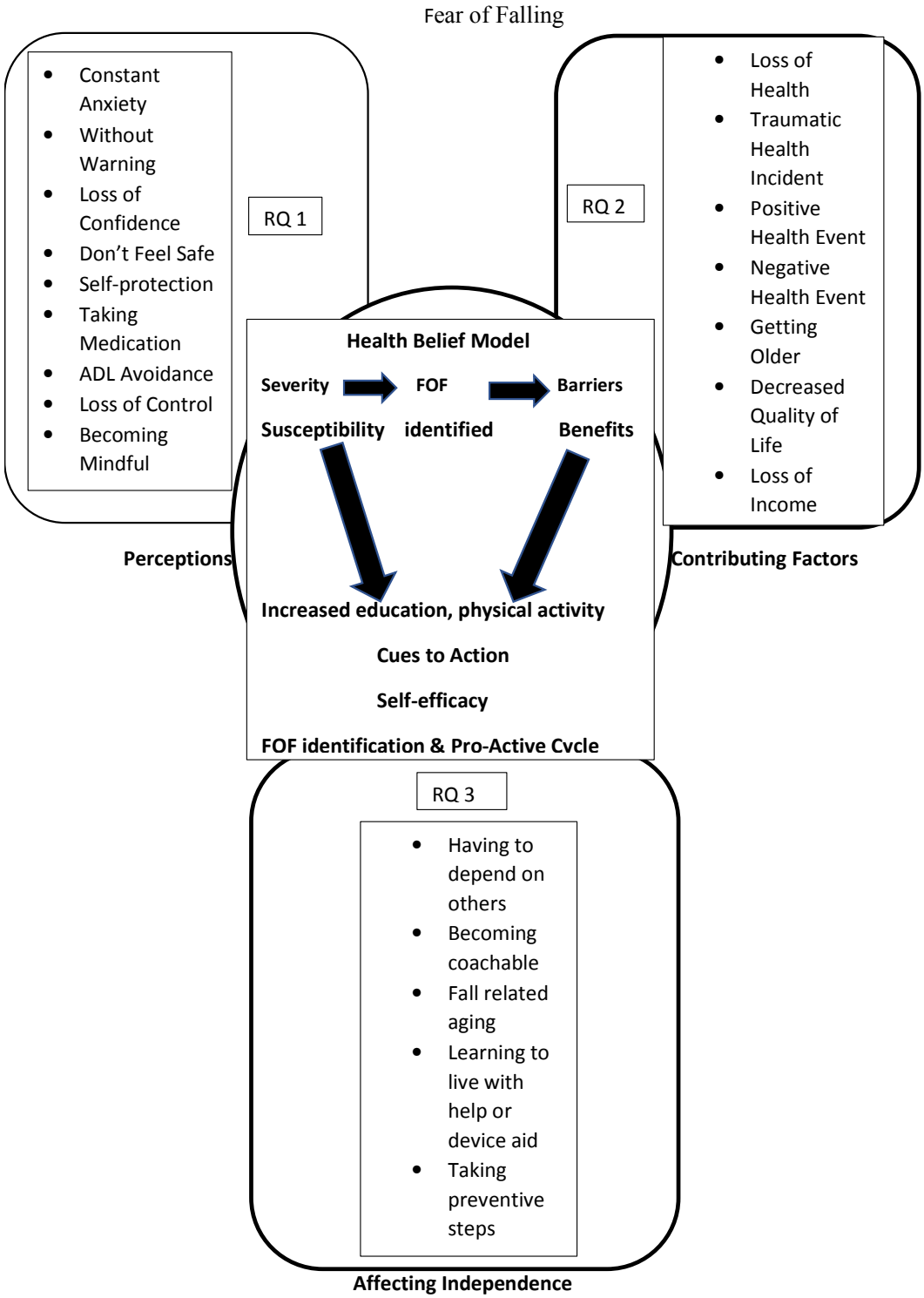

Figure 3. Results of study.

To recap the results of this study, a narrative summary detailing each research question (RQ), interview question (IQ) and thematic results have been organized as follows:

- RQ1 revealed a loss of health, loss of finance, and worrying about retirement as common themes for the first interview question (IQ1). Awareness or a realization of one's risk within indoor and outside, community environments, and age as a factor increasing risk emerged as the common themes for the second interview question (IQ2). Old age, observing other older adults at risk, fear of injury, loss if independence, death, awareness of stigma, risk mitigation, and healthy fear emerged from interview question three (IQ3). Past or present physical and psychological trauma, loss of physical or mental capacity, and inability to remain socially active were common themes for the fourth interview question (IQ4).
- RQ2 revealed that talking with a spouse or close friend, family member, talking with a primary care physician and not talking with anyone due to stigma or anxiety emerged as common themes for the fifth interview question (IQ5). Psychological or attitudinal hurdles that arise, a fear of injury, loss of mobility, and understanding rational or irrational fear differences were awareness of other's limitations, health impacts to self or others, and reducing anxiety emerged within question seven (IQ7). Greater awareness of home and work environments, realization of stigma, greater need for understanding, and

adjusting one's limitations based on current capabilities were common themes within question eight (IQ8).

- RQ3 revealed the need to remain active and socially engaged, consistent chronic condition or healthy lifestyle management, continue working, and maintaining a support network were common themes emerging from interview question nine (IQ9). Very little or no information at all, hearing other people talk about FOF, and awareness from observing others emerged as common themes for interview question ten (IQ10). One's personal attitude towards health and activity, prevention and managing chronic conditions, slowing the aging process were common themes for question eleven (IQ11). Maintaining health through aging, remaining active, and socially interactive, consistently competitive, accepting FOF should it be present, and constructing positive preventive steps emerged as common themes within questions twelve (IQ12).

To summarize the thematic results for this study, Table 8 outlines the major three result themes that interrelate with the HBM elements and aligned with the interview and research questions.

Table 8

Result Themes

Research Question	Interview Question	FOF Theme 1	Contributing Factors Theme 2	Independence Theme 3
RQ1	IQ1	Loss of health Loss of finance	Getting older Chronic Disease	Retirement Skill loss

RQ1	IQ2	Risk awareness Age, Inside and outside environments	Diminished capacity awareness	Caution and physical preparation
RQ1	IQ3	Old age Observing older parents and others at risk Healthy fear	Fear of injury Loss of independence	Awareness of stigma and risk mitigation
RQ1	IQ4	Past, present, physical or psychological trauma	Loss of mental or physical capacity	Inability to remain socially active
RQ2	IQ5	Talking with spouse or close family member	Talking with primary care physician	Talking with no one due to stigma or anxiety
RQ2	IQ6	Awareness of inside and outside environments Attitudinal and psychological hurdles	Fear of Injury and loss of mobility	Understanding rational and irrational fear
RQ2	IQ7	Comparing one's health status to others Increased limitations	Physical or mental impacts to self or others	Reducing anxiety through better attention and interaction skills
RQ2	IQ8	Greater awareness of life, work, home environments and those around me	Realization of stigma and need for discussion and understanding	Life balance and adjusting to one's capabilities or limitations
RQ3	IQ9	Need to remain active and socially engaged	Consistent management of my chronic condition and a healthy lifestyle	Maintaining a support network and continue working
RQ3	IQ10	Very little or no information at all	Have heard people talk about FOF	Awareness by observing others
RQ3	IQ11	Personal attitude about remaining active and health group participation	Prevention and managing chronic conditions	Prevent aging and living younger longer
RQ3	IQ12	Remaining healthy at one's age, staying active through exercise and social interaction	Constant comparing to older adults of similar age Play in healthy, fun competitions	Accepting and acknowledging FOF should it be present constructing positive prevention steps

Within the following sections, the theme results through the aligned interview questions will be expanded upon. The focus for each interview question has been designed to include participant results, the dominant themes emerged, including their statistical frequencies as well as interview question detail.

Research Question 1

To investigate the perceptions of FOF in older adults, four interview questions were used (IQ1, IQ2, IQ3, IQ4) that investigated how older adults thought they may be susceptible to FOF and the severities that may be incurred. In the first interview question (IQ1), I explored items or topics as an older adult they may worry about. The following three major items resulted from the older adult participants:

- Older adults worry about loss of health due to chronic disease such as diabetes, osteoporosis, or other morbidities such as high cholesterol and overweight (10 of 16 [63%]);
- Older adults worry about getting older, becoming more prone to chronic disease, becoming less active and unable to work or be productive (8 of 16 [50%]);
- Older adults worry about retirement based on whether or not they will have enough money, and financial viability (9 of 16 [56%]).

In interview question number two (IQ2), I explored how older adults think about their own risk of falling. The reported top three results for the older adult participants are as follows:

- Older adults think about personal risk of falling from increased awareness due to both indoor and outdoor/community environments (8 of 16 [50%]);
- Older adults think about personal risk of falling due to diminished physical condition and capability (10 of 16 [63%]);
- Older adults think about personal risk of falling based on activity preparation and awareness on precaution. (16 of 16 [100%]).

In the third interview question (IQ3) older adult thoughts when the term FOF is presented are explored with participant top three results as follows:

- Older adults thought about family members, parents and others in terms of age when asked about FOF and their personal thoughts or perceptions (6 of 16 [38%]);
- Older adults thought about a fear of injury and loss of independence that could lead to death when asked about personal thoughts regarding the term, FOF (12 of 16 [75%]);
- Older adults thought about stigma awareness, risk mitigation, and a healthy fear when asked about personal thoughts regarding FOF (8 of 16 [50%]).

The fourth interview question (IQ4) explores older adult perceptions as to what or how they may develop or experience a FOF. The top three reported interview results are as follows:

- Older adult perceptions regarding the personal development or experience of FOF are strongly influenced by past or present physical or psychological trauma (12 of 16 [75%]);

- Contributing factors towards FOF development or experience through older adult perceptions revealed an influence of mental or physical capacity loss (8of 16 [50%]);
- Older adult perceptions of FOF experience and personal development revealed that an inability to remain socially active may have a causative effect (6 of 16 [38%]).

Research Question 2

Further analysis of FOF and older adult perceptions are explored within the next four questions (IQ5, IQ6, IQ7, IQ8). Through face-to-face participant interviews, I investigated older adult thoughts regarding the benefits of understanding FOF, and the interactions and understanding this may yield. In addition, older adult thoughts regarding barriers as to what may influence their thoughts and the impact FOF may have on them personally. The interviews revealed the following dominant responses within interview question five (IQ5):

- Older adults revealed that they would talk with their spouse, partner, or close family member if experiencing a FOF (8 of 16 [50%]);
- Older adults may speak with their primary care physician or personal trainer should they experience a FOF (6 of 16 [38%]);
- The remaining older adult participants described talking with no one due to the stigma and anxiety that may be perceived with FOF (2 of 16 [12%]).

I investigate why it may be important for older adult participants to understand their own FOF within interview question six, IQ6. The dominant themes are as follow:

- Older adults perceived that their understanding of FOF would enhance greater awareness of indoor and outdoor/community environments as well as attitudes to approach hurdles that may arise (12 of 16 [75%]);
- Older adults perceived that a fear of injury and loss of mobility would enhance the importance for them to understand FOF (5 of 16 [32%]);
- The difference in determining whether FOF was a rational or irrational fear and how to approach FOF emerged from face-to-face interviews with older adult participants.

Within interview question seven, IQ7, I explore older adult thoughts regarding what might influence their thoughts regarding FOF. Older adult participants revealed the following results:

- Older adult perceptions revealed that one's personal health status, increased limitations, and observing other older adults may influence a personal FOF in older adults interviewed (10 of 16 [63%]);
- Older adults perceived that personal impact to themselves or other older adults may influence thoughts regarding FOF (10 of 16 [63%]);
- Older adults perceived that thoughts of FOF may be influenced through observation of one's environment, both indoor and outdoor/community (8 of 16 [50%]).

Interview question eight, IQ8, through one-on-one interviews explored the potential impact on older adult's personal lives or those they may know. The interviews with older adult participants revealed the following results:

- Older adults perceived that greater knowledge of FOF may positively enhance their awareness of life, work, and home environments as well as other older adults around them (7 of 16 [44%]);
- Older adult perceptions revealed a need for increase awareness regarding FOF stigma, the need for discussion around it, and greater understanding of FOF (4 of 16 [25%]);
- Older adults interviewed perceived that FOF might impact their lives regarding personal limitations experienced from limited capabilities, and need to adjust to a new life balance as well as helping other older adults (5 of 16 [32%]).

Research Question 3

Ultimate analysis of FOF and older adult independence within this study are explored through the next four interview questions (IQ9, IQ10, IQ11, IQ12). Within the personal one-to-one interviews with older adult participants I further investigated action cues and older adult perceptions regarding self-efficacy as it pertains to their perceptions of FOF. The following themes emerged during the final phase of participant interviews beginning with interview question nine (IQ9):

- Older adult perceptions of FOF and how they would minimize a personal FOF unanimously revealed the need to remain active and socially engaged (16 of 16 [100%]).

- Older adults interviewed perceived that managing their chronic conditions, e.g. diabetes, osteoporosis by participating in healthy lifestyle behaviors would minimize their personal FOF (8 of 16 [50%]);
- Older adult participants for this study perceived the importance of maintaining a social network and continuing to work in minimizing a personal FOF (12 of 16 {75%]).

Interview question ten, IQ10, explored within this study's older adult participants their familiarity with information regarding FOF. The emerging themes for interview question ten, IQ10 are as follows:

- Older adult perceptions regarding public information regarding FOF was nearly unanimous in that there is very little or no public information at all regarding FOF (15 of 16 [94%]);
- Older adult participants interviewed personally for this study spoke about hearing others who suffer from health issues, a chronic condition, and even a fall talk about FOF (10 of 16 [63%]);
- Older adults within this study simple talked about observing other older adults who may have fallen within indoor or outdoor settings as a cause for awareness and potential FOF (6 of 16 [38%]).

Older adult participants were asked in one-on-one interviews what helps them sustain and maintain motivation and participation/activity levels. Here are the major themes that emerged from interview question eleven, IQ11:

- Older adult participants maintain a personal attitude for remaining active that includes healthy participation within a social group (11 of 16 [69%]);
- Older adults perceived that preventive steps as well as successful management of personal chronic conditions helped to keep motivation and participation levels sustainable among those older adults interviewed for this study (8 of 16 [50%]);
- Older adult participants within this study perceived that by setting a goal to live longer or older, as young feeling as possible, was important to sustaining and maintaining motivation and participation levels (9 of 16 [56%]).

In interview question twelve, IQ12, I asked older participants within this study to think about what gives them confidence and how confidence might help them alleviate FOF if it were to be present. These were the dominant themes that emerged from the one-on-one interviews:

- Older adults within this study perceived that remaining healthy as one ages, staying active through exercise, and maintaining social interaction boosted confidence and therefore eliminating FOF (9 of 16 [56%]);
- Study participants perceived that by constant comparison of similar age older adults and challenging one's self to healthy competitions were also noted as positive ways to minimize FOF and other fears as well, e.g. fear of injury (4 of 16 [25%]);

- Older adult study participants also perceived an acceptance of FOF should it ever be present in lives and developing constructive positive prevention steps to reduce FOF (4 of 16 [25%]).

Summary

The purpose of this qualitative descriptive phenomenological study was to explore perceptions of FOF in older adults. Multiple themes emerged through this study's three research questions. The first research question focused on FOF and older adult perceptions regarding the susceptibility and severity within the personal situations of the older adults within this study. Themes that emerged from this research question are that older adults worry about losing their health due to chronic disease, think about their risk of falling due to diminished physical condition, think about parents and old age regarding FOF, and how past and present physical or psychological trauma may influence their FOF.

The second research question explored benefits to understanding FOF for older adults as well as barriers that may affect their thoughts regarding FOF and the impact on them personally or people they know as contributing factors of FOF. Dominant themes to emerge from research question two are that if experiencing a FOF, they would talk with their spouse, partner, or close family member. Understanding FOF would enhance both environmental and attitudinal awareness. One's personal health status, increase limitations and observing other older adults may add greater knowledge and mindfulness regarding FOF. Ultimately, this may positively enhance their lives, environmental

awareness at work, within the community and indoors as well as the affect FOF may have on other older adults within their social sphere.

Research question three studied FOF and older adult's independence regarding action cues and participant self-efficacy levels related to FOF presence, educational information, sustaining motivation levels, and the minimization of FOF. Themes that emerged are that remaining active physically and socially engaged, the need to have a more open and broader discussion regarding FOF, personally maintaining a physically and socially positive attitude, and remaining as mentally and physically young through the aging process to keep confidence levels elevated were keys to minimizing and perhaps potentially eliminating FOF in older adults.

In summation within Chapter 4, the key results of perceptions of FOF in older adults leading to conclusions are included. Also described in this Chapter were the pilot study, demographics, data collection, analyzing evidence of trustworthiness, and ultimate results. Within Chapter 5, I present the interpretation of the findings, study limitations, recommendations, implication and conclude with the key essence of the study.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

The purpose of this study was to understand perceptions of FOF in older adults by using a phenomenological descriptive qualitative approach. The phenomenological descriptive method provided a proper vehicle for collecting rich, relevant data that were specific to FOF. The fact that FOF is similar to loss of balance in older adults has led to mere identification of FOF versus in-depth research, therefore producing a convenient one-size-fits-all approach (Dohrin et al., 2015).

The investigation of FOF as a separate variable and how it may affect the lives of older adults has been sparse. Only identifying FOF does not provide the in-depth observation and understanding that are needed; therefore, the objective of my study was to understand how the perceptions of older adults might provide a deeper glimpse into FOF, how FOF is perceived, what may cause FOF, and, ultimately, how it affects the independence levels of older adults. Lastly, from this understanding, allow for a broader view of FOF, and how this may help establish a more flexible discussion and approach when addressing FOF in older adults who have or have not fallen (Hsu et al., 2013).

To facilitate data collection yielding context that was rich and relevant, I developed a phenomenological, descriptive qualitative approach. This study's approach used the strategy defined in Colaizzi's seven steps for data analysis. An open-ended questionnaire was used within this study. The data collection instrument allowed for flexibility depending on the semistructured interview direction present as well as robust amounts of descriptive information collected. Based on current qualitative analysis and

recent research regarding FOF, this phenomenological study sought to provide heterogeneity versus a homogenous sample (Clancy et al., 2015; Host et al., 2011).

Key findings that emerged from this were germane to the perceptions of FOF in older adults. To start, perceptions of FOF in older adults (RQ1) related to constant anxiety, loss of confidence, not feeling safe, taking medication, incidence without warning, depression, isolation, stigma, self-protection, avoiding activities, and becoming mindful. Next, older adults' perceptions of contributing factors to their FOF (RQ2) related to a traumatic health incident, loss of health, getting older, loss of income, lack of education, loss of mobility, fear of injury, positive health events, negative health events, and decreased quality of life. Continuing on, how older adults perceived that FOF had affected their independence levels (RQ3) was associated with having to depend on others, becoming coachable, fall-related aging, learning to live with the help of a device, taking preventive steps, loss of muscle strength, loss of balance, increased mental and physical frailty, finding accurate information regarding FOF, accessing professionals, and family support needs. Ultimately, findings for the three research questions (RQ1, RQ2, and RQ3) were germane to constant anxiety, loss of confidence, activities of daily living avoidance, depending on others, loss of muscle strength, loss of balance, traumatic health incidence, loss of health, and decreased quality of life.

Interpretation of the Findings

The aim of this phenomenological, descriptive, qualitative study was to gain a more thorough and accurate understanding of FOF through the perceptions of older adults. The findings reveal life examples from the lens and real experiences of older

adults regarding FOF and how these informed their perceptions of FOF, contributing factors in their FOF, and how perceptions of or perceived FOF may affect their independence levels. The older adults' experiences and perceptions emerging in this study broadened major themes in the Chapter 2 review of literature, highlighting their perceived susceptibility, perceived severity, perceived benefits, perceived barriers, cues to action, and individual self-efficacy pertaining to FOF.

Findings from participant interviews reported in Chapter 4 were reduced into key findings presented in Table 2 for the alignment of the interview questions with HBM elements and research questions. As a more effective way of presenting the key findings of this study, bar graphs were constructed to best demonstrate the conciseness, accuracy, and value of the finding interpretations (Slutsky, 2014). The values based on 16 participant's responses are numerically represented in vertical columns.

Health Belief Model

Older adult participants for this study reported that loss of health, getting older, retirement, risk of falling, less capacity, awareness, others, injury fear, independence, stigma, past trauma, and isolation were related to susceptibility and severity within HBM. In Figure 4, the key findings related to HBM elements are illustrated, including the frequency values from the 16 participant interviews. To address this research question, RQ1, HBM was aligned and theme approaches emerging examined (IQ1), older adult worries (IQ2), older adult fall risk personal thoughts (IQ3), older adult thought regarding the term, FOF (IQ4), older adult thoughts regarding their development of FOF.

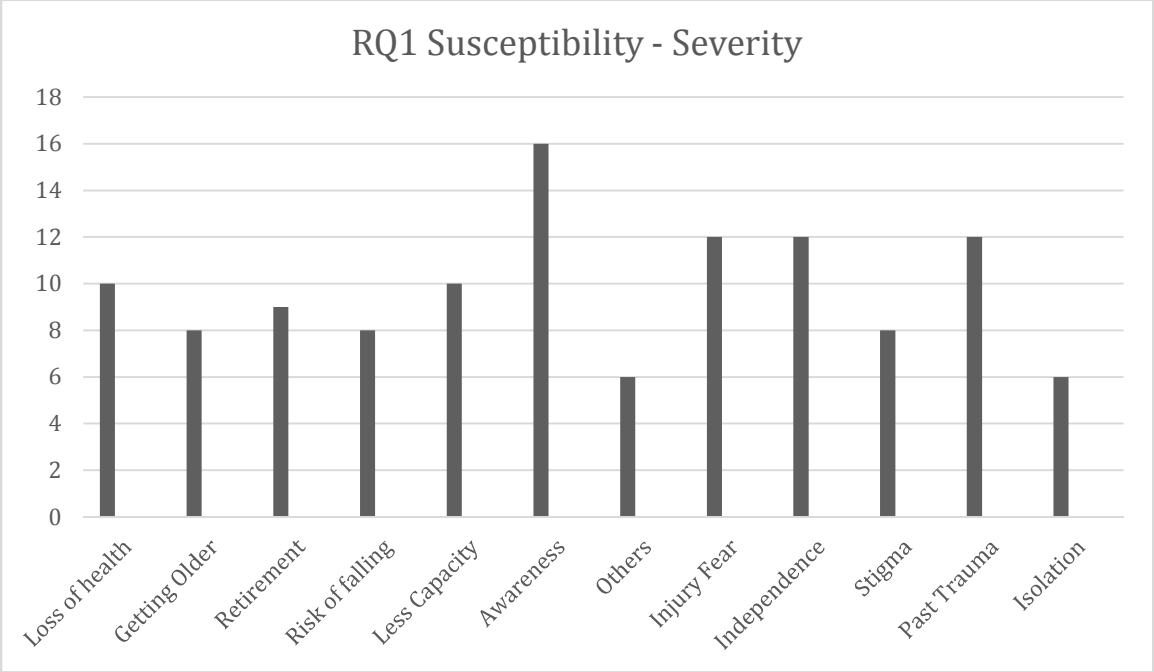

Figure 4. Findings related to HBM—Susceptibility and severity.

Older adult participants in this study reported talking with their spouse, speaking with a physician, not talking at all due to stigma, environmental alerts, fear of mobility, types of fears, observing others, personal events, indoor/outdoor surroundings, greater knowledge, more discussion, and adjustments related to benefits and barriers within HBM. In Figure 5, the key findings related to HBM are illustrated, including the frequency values from the participant interviews. To address this research question, RQ2, HBM was aligned and theme approaches emerging examined (IQ5), if experiencing FOF, who would older adults talk with (IQ6), the importance of understanding FOF as an older adult (IQ7), what would influence their FOF thoughts (IQ8), how would FOF impact their life or others.

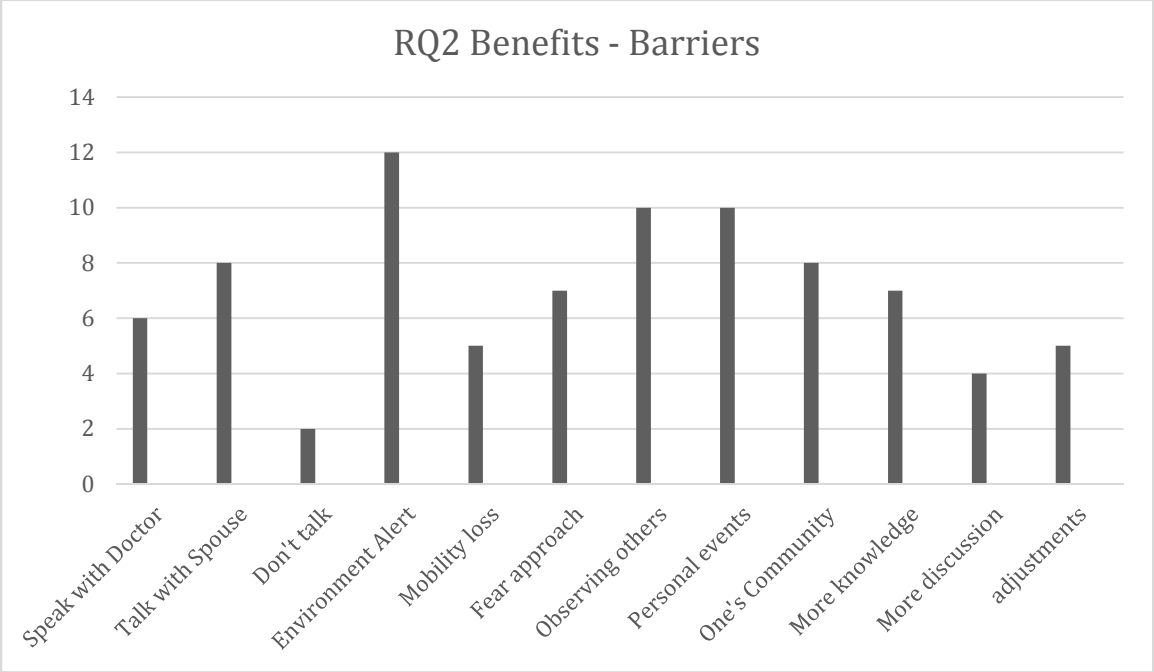

Figure 5. Findings related to HBM—Benefits and barriers.

Older adult participants in this study reported staying socially and actively engaged, healthy lifestyles, continuing to work, little public information, health of others, falls of others, social groups, preventive steps, positive goals, healthy aging, healthy competition, and accepting FOF as related to cues to action and self-efficacy within HBM. In Figure 6, the key findings related to HBM are illustrated, including the frequency values from participant interviews. To address this research question, RQ3, HBM was aligned and theme approaches emerging examined (IQ9), minimizing personal FOF (IQ10), familiar information regarding FOF (IQ11), sustaining motivation and participation (IQ12), what gives confidence and alleviates FOF if present.

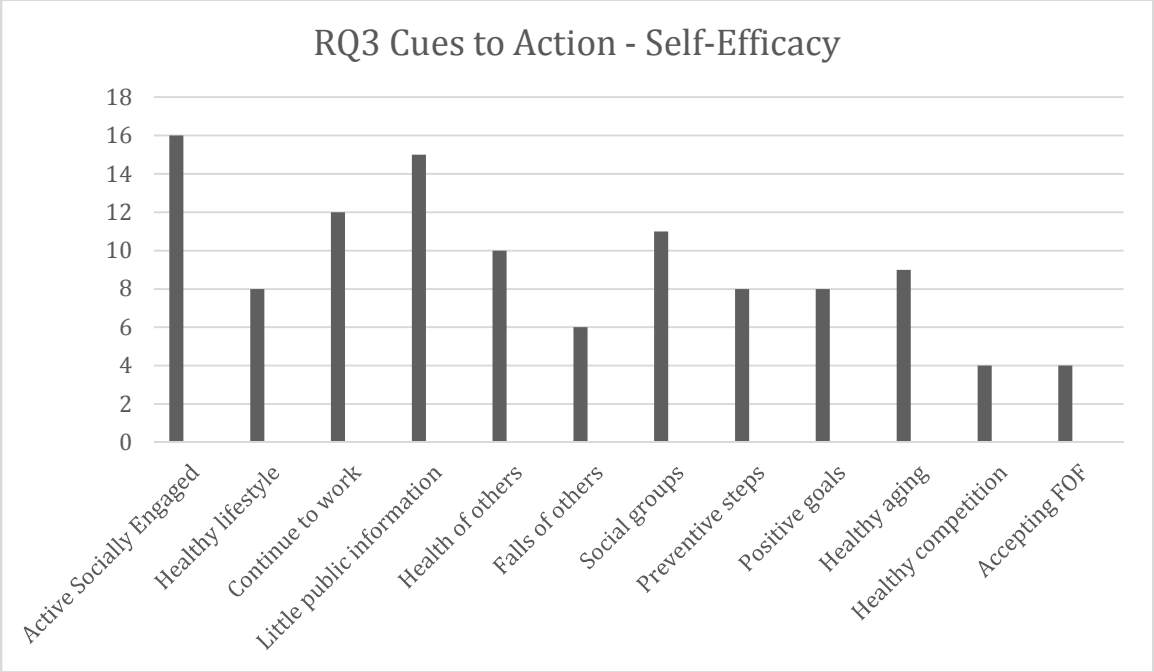

Figure 6. Findings related to HBM—Cues to action and self-efficacy.

Limitations of the Study

Limitations within this phenomenological, descriptive, qualitative study were specific to time constraints, personal funding, geographic locations, the participant sample size, honest responses to interview questions, as well as my ability as the researcher to maintain consistency throughout the interview process to collect rich data. The random sample size of 16 older adult participants is important in understanding that this study provides only a narrow sampling of what a larger study concerning perceptions of FOF in older adults might provide if time and resources are less constraining. Lastly, the influence of researcher bias was included within the limitations for this study. Ironically, in my role as researcher during the time of proposal finalization, I witnessed

an older adult experience a catastrophic outdoor fall. The fall severely incapacitated the individual and tragically led to death 9 weeks later.

This researcher remained mindful of how personal bias may affect the data collection process and ultimately, outcomes of this study (Patton, 2015). It was important to remain mindful of personal bias during the research and remain consistent to the criteria presented in the scope of this study.

Recommendations

My investigation into perceptions of FOF in older adults, although limited, has informed definitive criteria for future research of FOF as a separate phenomenon. Recommendations for future study would include but not be limited to environments, both indoor and outdoor that may induce greater FOF in older adults where familiar or, unfamiliar. Continuing studies exploring gender differences in perceptions of FOF including associated stigma as a barrier to action cues in older adults.

Additional recommendation for expanded discussion and research would focus on what prevents older adults from confiding in one's physician, with family members, and peers. How FOF may affect one's pride, identity, spirit, and what the presence of FOF may be prior to experiencing a fall. All this in the hope that older adults may gain a working cognizance of the possibility of FOF – accepting and acknowledging that older adults may be susceptible to FOF for many reasons other than age as the major factor.

Implications

This study aligns with the care, treatment policy, and practice of the American Geriatrics Society, AGS. In the AGS framework, Health in Aging Foundation, of

building confidence, starting with small steps, provide repeated encouragement, remembering their success, exercise compassion, avoid useless gestures, don't hesitate to act, offer words of encouragement, check in often to show you care, and take care of yourself are in direct alignment with HBM elements in this study and aimed at improving and maintaining levels of self-efficacy in older adults.

Centers for Medicare and Medicaid Services, CMS, aligns with this study through new services integrated into the compendium of care that now support collaborative care between primary care providers and psychiatrists for conditions such as depression and anxiety which emerged during this study and further inform the investigation of FOF in older adults.

Lastly, the CDC national center for injury prevention and control produced, STEADI, stopping elderly accidents, deaths, and injuries program which aligns with the HBM and outcomes in this study of perception of FOF in older adults.

Potential Impact for Positive Social Change

This study's findings may contribute to positive social change in the form of increased awareness that enhance interactions among healthcare professionals and older adult individuals as well as the publication and inclusion of additional context that further informs the mind-body link that can also be delivered by non-clinical care givers to increase awareness among the lay population. This renewed understanding of FOF may contribute in the form of enhanced communication through renewed definitions and FOF vocabulary specifically aimed at older adults that may be delivered by non-healthcare professionals, family care-givers. Based on an identified literature gap of FOF' effect on

increased incidence of falls, and rising expenditures due to falls it was important and timely to pursue this study of adults' perceptions of FOF.

Methodological, Theoretical, and/or Empirical Implications

There were no methodological, theoretical, or empirical implications in this study. The participants, randomly selected for this study were older adults age 60 and above. This older adult population was appropriate and meaningful for diving into the literature gap described in Chapter 1 that urges movement beyond quantitative analysis may enable a better understanding of why and when older adults may begin to demonstrate low self-efficacy or loss of confidence within their daily activities and continue to study FOF as an individual issue versus a group and more generalized approach.

Recommendation for Practice

Recommendations in this phenomenological, descriptive, qualitative study may help to further define the approach towards older adults in health practice. Federal and health policies begin at age 65 for Medicare benefits. However, AARP begins outreach with adults age 50 and older, movie theaters extend senior pricing at age 62, and baby boomers do not believe they are old. In the U.S. Census, older adults are those age 65 + and have also identified baby boomers, a cohort born from 1946 to 1964 of whom some are older adults. Society categorizes by age and includes expectations and assumptions about abilities based on chronological age and societal norms.

Treating FOF as an individual issue that may result from an individual's poor health status may not be totally defined by age as a characteristic of aging only but rather, based on an individual's overall mental and physical capacity.

Conclusion

The key findings from this phenomenological, descriptive, qualitative study in Table 9, further inform knowledge bank of FOF and older adults that may enhance the current understanding of healthcare professionals as an individual variable when working with adults who demonstrate risk.

Table 9

Key Findings From the Study

Theoretical foundation	Research question	Key findings and perceptions of FOF reported by older adults
HBM	RQ1	Loss of health, getting older, retirement, Risk of falling, diminished capacity, Precaution awareness, thinking of others, Fear of injury, loss of independence, stigma of FOF, past trauma, isolation
HBM	RQ2	Talk with spouse, speak with physician, talk with no one, environmental alert, fear of mobility, type of fear, observing others, personal events, indoor/outdoor, greater knowledge, more discussion, adjustments
HBM	RQ3	Active socially engaged, healthy lifestyles, continue to work, little public information, health of others, falls of others, social groups, preventive steps, positive goals, healthy aging, healthy competition
HBM	RQ3	Accepting FOF

The key findings represented in Table 9, provide accurate examples and perceptions of older adults. The lived experiences and perceptions of FOF in older adults may help to enhance approaches that address FOF as a separate variable rather than identify it only as an unintended consequence of poor balance. The results may enhance older adults' perception and recognition of FOF or possible signs of FOF. The results may encourage older adults to seek additional knowledge and information regarding FOF. Ultimately, the key result findings may help to encourage older adults in seeking

proper healthcare professionals to help minimize the stigma associated with this problem and work collaboratively to help reduce the risk of falls.

Key findings as reported in Table 9, present the results from perceptions of FOF in older adults. An increased awareness and understanding of older perceptions may enhance interactions among healthcare professionals and older adult individuals as well as the publication and inclusion of additional context that further informs this mind-body link may also be better understood and delivered by non-clinical care givers to increase awareness among the lay population. This renewed understanding of FOF may contribute in the form of enhanced communication through renewed definitions and FOF vocabulary specifically aimed at older adults that may be delivered by non-healthcare professionals, family care-givers. Based on an increased understanding of older adult FOF perspectives, and potential benefits, researching the perceptions of FOF in older adults was an important study to undertake.

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Appendix A: Recruitment Flyer

Doctoral Research Study

My name is Ken Germano, a PhD student in Health Services and Public Policy at Walden University, conducting a research study investigating Perceptions of Fear of Falling in Older Adults.

I am seeking older adults to interview who are age 60 years and above and that may have or have not yet experienced a fall. The face-to-face interview takes approximately 45 to 60 minutes in duration. At any time during the interview, the research participant may withdraw if she or he wishes to no longer take part in the process.

All participants will receive a $25 gift card to Starbuck's or Panera restaurants. The researcher hopes that this study will contribute to programs and interactions specifically aimed at older adults as well as the inclusion of innovations that expand a mind-body link that may be delivered by non-clinical professionals, family members, and friends.

The Institutional Review Board (IRB) approval number from Walden University for this study is 10-24-17-0411088 and expires on 10-23-2018.

If you should have any questions or would like to confirm your participation, please feel free to contact me.

Sincerely yours,
Ken Germano, MPH

Note: Photo reprinted with permission from iStock.

Appendix B: Demographic Questions

Number Measurement	Questions	Definition	Data
DQ1	What is your age?	Self-reported years of age calculation based on participant birth date	Mean
DQ2	What is your gender?	Self reported gender male or female	Categorical
DQ3	What is your race?	Self-reported	Categorical
DQ4	What is the highest level of education completed?	Self-reported highest degree held (Bachelor, Master's or higher)	Categorical
DQ5	What is your occupation?	Self-reported	Categorical
DQ6	How many years have you worked in this profession?	Self-reported years of working in their profession	Mean

Appendix C: Interview Guide

Introduction: Provide the name of the researcher, title of the study, the research purpose, and the IRB approval number. Obtain demographic information; age, gender, race, education, their current occupation, and years working in their profession.

Susceptibility

- As an older adult, what are some things or topics you worry about?
- As an older adult, how do you think about the risk of falling for yourself?

Severity

- What do you think of when you hear the term, fear of falling?
- Why do you think you might develop or experience a fear of falling?

Benefits:

- Who would you talk with if you were experiencing a fear of falling?
- Why would it be important for you to understand your fear of falling?

Barriers

- What do you think might influence your thoughts regarding the fear of falling?
- How do you think a fear of falling might impact your life or people you know?

Action Cues

- How do you think you would go about minimizing your fear of falling?
- What information are you familiar with regarding fear of falling?

Self Efficacy

- What helps you as an older adult sustain motivation and participation levels?
- As an older adult, what gives you confidence and how do you think this might help to alleviate a fear of falling should it be present?

Conclusion: Express gratitude to the participant for their time as a research participant.

Debrief: Explain to the participant what happens next and explain how they will be contacted for follow-up and verification. Inform the participant that their data will be protected.

Appendix D: NIH Certificate

Certificate of Completion

The National Institutes of Health (NIH) Office of Extramural Research certifies that **Kenneth Germano** successfully completed the NIH Web-based training course "Protecting Human Research Participants".

Date of completion: 06/21/2013.

Certification Number: 1199020.