

OLDER ADULTS' PERCEPTIONS OF FALL-PREVENTION EDUCATION:
A QUALITATIVE STUDY

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ABSTRACT

OLDER ADULTS' PERCEPTIONS OF FALL-PREVENTION EDUCATION: A QUALITATIVE STUDY

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The aim of this qualitative, phenomenological study was to gain an understanding of older peoples' experiences and perceptions of education about fall prevention to establish what features of communications about fall risk and prevention are perceived as helpful and acceptable and which are not. This research is based on the Health Belief Model, which predicts the likelihood of an individual to undertake recommended health action, such as taking part in fall risk reduction activities. Using purposive sampling, ten participants between the ages of 69 and 98 years, four male and six female from a variety of units were interviewed using fall prevention messages to stimulate discussion. The interviews were analyzed using the selective highlighting method of Max van Manen.

Previous experience with fall prevention education indicated a lack of information: most participants suggested "being careful" was a way to reduce the risk of falling. Participants had a poor understanding of the link between physical condition and fall prevention and were unaware of the high risk for falls in a hospital setting. Participants described education relevant to reducing the risk of falling including the use of non skid rugs, getting up slowly, and asking for help. Interventions specific to personal events such as a bad fall, work-related hazards, and preoperative education were well

remembered. Perceptions of fall prevention education included that education is helpful when it pertains to those who are at risk for falling, however participants did not perceive themselves to be a fall risk and did not accept changes with aging. Participants expressed frustration and aggravation with the way health care providers give advice. Many felt that education is not useful because falls are accidents that are not preventable. In addition, reception of education depends on who is giving the advice.

Recommendations for improving education include receiving messages from trusted family, friends, and professionals, and educating health care providers on the use of evidence-based fall prevention interventions and teaching methodologies. In addition, messages that emphasize what can be done to promote independence, that build on strengths and what is already being done well should be employed. One way to accomplish this is to promote exercise programs. Health care providers should also help patients understand that most falls are preventable. Fall prevention interventions should be discussed before, during and after hospitalization, and should take place in the hospital, physician's office, home, work place and community. Education programs that respect independence and life experience and involve the patient and family in planning interventions should be well received. It is also important to tailor the education to specific needs, use multimodal delivery methods, to practice with the participant and assess for understanding. Adoption of an education program that takes into account the needs and desires of the older adult inpatient population should increase participation in the program and reduce the fall rate in this high risk population.

CHAPTER I: BACKGROUND AND RATIONALE FOR STUDY

Introduction

There are many ways to define a fall. One commonly accepted definition is an unplanned descent to the floor (or extension of the floor, such as trash can or other equipment) with or without injury to the patient (Krauss et al., 2007). The Centers for Disease Control and Prevention (CDC, 2009a) adds that falling results from a syndrome that represents symptoms and signs of disordered function in a disordered environment. Falling does not have a single cause, but is a result of an interaction of intrinsic, extrinsic and environmental factors. Though it is important to have a technical definition of falling for this study, the personal meaning of a fall goes much deeper. Falling is a significant cause of death and disability among older adults, but can also affect the confidence, independence and quality of life of older persons (Wiens, Koleba, Allyson Jones, & Feeny, 2006). Several studies have reported the detrimental effect that fear of falling can have on older people's quality of life, contributing to a cascade of dependency and functional decline resulting in fatal outcomes (McCarter-Bayer, Bayer, & Hall, 2005; Simpson, Darwin, & Marsh 2003).

Though there is a great deal of information in the literature about fall prevention interventions, and many of those interventions are used in hospitals, few of the interventions used are evidence-based. Evidence-based nursing involves a decision-making process that integrates the best available research, clinician expertise, and client characteristics. Interventions range from multifactorial, for which there have been a few randomized controlled trials reporting mixed effects, to traditional interventions, based on expert opinion. Most interventions include a component of patient education, but do not

highlight effective teaching methodology. Elders may accept traditional fall-prevention messages, but view them as not personally relevant (Hughes et al., 2008; Yardley, Donovan-Hall, Francis, & Todd, 2006). Yardley et al. (2006) reported that fall prevention education may even fuel negative attitudes. There is little information on older adults' opinions about risks for falling, especially in the hospital setting (Wiens et al., 2006). Interventions are effective only if there is sufficient patient participation. It is important to discover if patient education in a hospital setting is motivational and will promote adherence to fall prevention programs.

Problem Statement

The aim of this study is to gain an understanding of older adults' experiences and perceptions of education about fall prevention in order to establish what features of communications about falling risk and prevention are perceived as helpful and acceptable and which are not.

Justification of Study

Preventing falls later in life is an important public health priority. In the U.S. and the United Kingdom, more than one third of people over the age of 65 years fall each year (Yardley, Bishop et al., 2006). Between 4 and 12 falls per 1,000 patient-days occur in U. S. hospitals (Oliver, Daly, Martin, & McMurdo, 2004). Falls are the most common type of inpatient accident with falls reportedly accounting for up to 70% of inpatient accidents (Krauss et al., 2005). In a self-report study by the CDC in 2006, 16% of all US adults over 65 years fell at least once during the preceding 3 months, and 5% of all persons over 65 sustained some type of recent fall-related injury (CDC, 2008).

Poe, Cvach, Gartrell, Radzik, and Joy (2005) reported that though the fall rate may be highly variable, injuries from falls have slowly increased over time. Fall-related injuries are the leading cause of injury related morbidity and mortality in older individuals (CDC, 2009a). Over 30% of patient falls result in physical injury, with 4-6% resulting in serious injury. Even when injuries are minor they can induce a fear of falling, which can lead to self-imposed activity restrictions, social isolation and depression (Sharaf & Ibrahim, 2008).

Fall-related medical treatment places a burden on US health-care services. In 2000 direct medical costs for fall-related injuries totaled approximately \$19 billion. By 2020 annual direct and indirect cost of all fall injuries is expected to reach \$54.9 billion (CDC 2009b). Beginning Oct. 1, 2008, the Centers for Medicare and Medicaid Services (CMS) no longer provide reimbursement over and above the typical rate for care required as a consequence of falls and trauma including fractures, dislocations, intracranial injuries that occur during hospitalization. The loss of revenue as a result of the changes is expected to be costly (Sanders, 2008). Thousands of dollars are spent annually on technology that tracks patient movement and provides greater communication between patient and staff, in addition to other patient safety measures such as softer lighting, non-skid surfaces, and hand railings in hallways. In spite of huge expenditures, the healthcare industry has not decreased the fall rate (Sherrod & Good, 2006). Though evidence is not conclusive, it suggests that an effective intervention provided to people who are at high risk for falling has the potential to be cost-effective or even cost saving compared with current practice (RAND Corporation, 2003).

The Joint Commission (formerly JCAHO) published the first set of National Patient Safety Goals in 2003. The goals were designed to highlight problematic areas in health care and share appropriate evidence and expert based solutions to the most commonly identified issues (Joint Commission, 2009a). The goal of “Reducing the risk of patient harm resulting from falls” first appeared on the Joint Commission National Patient Safety list in 2005 (JCAHO, 2005). This goal remains on the list for 2009 because falls continue to account for a significant portion of injuries in hospitalized patients (Joint Commission, 2009b). Accredited organizations are expected to implement a fall-reduction program with an evaluation that is appropriate to their population, setting and services (Joint Commission, 2009b).

Theoretical Framework

The Health Belief Model (HBM) predicts the likelihood of an individual to undertake recommended health action, such as taking part in fall risk reduction activities. This model attempts to explain and predict health behaviors by focusing on the attitudes and beliefs of individuals and will support the focus of this research. The HBM has four constructs representing perceived threat and net benefits: perceived *susceptibility*, perceived *severity*, perceived *benefits*, and perceived *barriers*. These concepts were proposed as accounting for people's "readiness to act." An added concept, *cues to action*, activates that readiness and stimulates overt behavior. A recent addition to the HBM is the concept of *self-efficacy*, or one's confidence in the ability to successfully perform an action. This concept was added by Rosenstock and others in 1988 to help the HBM better fit the challenges of changing habitual unhealthy behaviors, such as being sedentary, smoking, or overeating (Glanz, Lewis & Rimer, 1997). Bellamy (2004) posited that this

model could be used to design educational interventions that are most likely to be effective

The HBM was first developed in the 1950s by social psychologists Hochbaum, Rosenstock and Kegels working in the U.S. Public Health Services. The model was developed in response to the failure of a free tuberculosis health-screening program (Glanz, Rimer, & Lewis, 2002). Both the HBM and Prochaska's Transtheoretical model were considered as a framework for this study; both were developed to identify factors that predict whether individuals will engage in preventive health behaviors with a focus on beliefs about health behavior (Levy & Myers, 2004). Originally neither of these models considered whether self-perceptions influence the likelihood of engaging in preventive health behaviors. Previous research by Levy and Myers (2004) has shown that self-perceptions in elders can affect a variety of health outcomes. Those who perceive illness as inevitable as they age are less likely to participate in their health care – including seeing a physician less often. Levy and Myers found that older individuals who had more positive self-perceptions of aging were significantly more likely to practice preventive health behaviors over the next two decades. Subsequent amendments to the HBM model made as late in 1988 accommodate evolving evidence generated within the health community about the role that knowledge and perceptions play in personal responsibility (Glanz et al., 2002), therefore the health belief model was selected to frame this study.

Assumptions

The following assumptions underlie the current qualitative study:

1. It is assumed that participants will tell the truth due to their knowledge that the truth will serve to help reduce the fall rate.
2. It is assumed that an educational methodology exists that will increase patient participation in efforts to reduce falling.
3. Participation in a fall risk reduction program will reduce the rate of falls

Definition of Terms

Fall: A fall is an unplanned descent to the floor (or extension of the floor, such as trash can or other equipment) with or without injury to the patient.

Fall rate: Calculated by dividing the number of patient falls by 1000 patient days.

Fall risk assessment: Fall risk assessment is a systematic, comprehensive process to identify an individual's risk factors for falling

Fall risk assessment tool: A numerical scale used to measure patient risk levels and score patients. Once assessment is complete scores are totaled and the final score determines the fall risk level for the patient.

The Health Belief Model: A theory that explains and predicts health behaviors by focusing on the attitudes and beliefs of individuals.

Older adult: One aged 65 or older.

Patient days: Days spent as an overnight patient in a hospital or days on which a person was kept in bed for more than half a day.

Conclusion

In conclusion, this study examines the perceptions of older people regarding fall risk education. The main objective of this study was to discover an effective teaching methodology that would help reduce the fall rate by engaging older patients in the

hospital to participate in fall prevention interventions. As the population of the United States ages, and the cost of care for injuries occurring from falls increases, this study fills an important need by providing information that is lacking in the literature on the perceptions of older patients on fall prevention in a hospital setting.

CHAPTER II: REVIEW OF THE LITERATURE

Education in fall prevention

How can fall prevention interventions be designed to meet the needs, preferences and capabilities of the individual hospital patient? Educational or awareness-raising strategies are commonly utilized in multi-factorial fall-prevention programs (Gillespie et al., 2003), however there is little evidence to support the impact of educational input (Hughes et al., 2008). Areas of research include modifications in staff and patient education. A study by Dacenko-Grawe and Holm (2008) showed fall rates declined by 50% over a 3-year period without rebound after instituting a fall prevention protocol based on education of staff members about identification of patients at high risk for falling. Action plans are more successful when older people are invited to take an active part in the assessment process, rather than being passive.

Motivational interviewing is an evidence-based counseling approach that health care providers can use to help patients follow treatment recommendations. Motivation is an important nursing task, and it has been shown that motivational interviewing is a successful method of promoting treatment adherence (Levensky, Forcehimes, O'Donohue & Beitz, 2007). This technique can be applied in brief 10-15 minute patient encounters. A review of this technique by Rubak, Sandbaek, Lauritzen, and Christensen (2005) found modest effects in treatment adherence and health safety practice, the behavioral changes among the most difficult to make. This method is grounded in assumptions that struggles with ambivalence are a normal part of process of change. Patient motivation and readiness to change are not static, but dynamic states greatly influenced by interactions by provider and patient (Pinto & Floyd, 2008).

The tailoring of advice to make it more personally relevant has only recently been applied to falls prevention material. A study by Nyman and Yardley (2009) showed that use of a website providing tailored advice on falls prevention to older people can improve adherence. Tailoring is a technique that makes information more personally relevant to the individual by taking the individual's answers to questions and using them to match the advice to the individual's needs and preferences. It has been found that the more relevant a person finds educational information, the more persuasive that information is. Tailored interventions receive significantly better self-reports of the advice being remembered and personally relevant, with improved behavioral outcomes (Ryan & Lauver, 2002). The website was analyzed for acceptability because previous fall prevention advice has been reported by some older adults as both common sense and potentially patronizing, or frightening and oppressive (Yardley, Donovan-Hall, Francis & Todd, 2006). The website was reported as being generally well accepted among older people and could be a promising new avenue to help motivate older people to undertake balance training.

A study by Ness, Gurney and Ice (2003) provided education at health fair screenings, including verbal advice and written materials to determine if individuals would change fall-risk behavior. In post intervention telephone interviews 72% of participants reported using at least one risk-reduction behavior – the most common being vision examination, followed by exercise. Scaramuzzo (2007) developed a treatment orientation program for oncology patients. The program was developed with patient input using focus groups. The study demonstrated that knowledge decreases distress and

facilitates coping and adaptation, enabling patients to become active participants in their healthcare.

Effective Teaching for Older Adults

Patient education is defined as the process of enabling individuals to make informed decisions about their personal health-related behavior. It aims to improve health by encouraging compliance with medical treatment regimens and promoting healthy lifestyles. Patient education is an essential component of effective healthcare delivery. Educational models based on behavioral theory can help us to understand patient actions however; eliciting behavioral change is a complex process (Bellamy, 2004).

Best (2001) discussed effective teaching for older adults, asserting that older adults have special learning needs. This is an important area of focus because older adults are the fastest growing segment of the population, and current trends in cost containment have resulted in shorter stays and increasingly limited amounts of time for education. Planned education showed improved outcomes for 66% of patients compared to routine education. Preadmission teaching was also identified as effective. Adult learners are self-directing. They bring their own life experiences to the situation and those must be considered during the educational experience. Readiness to learn and motivation to learn are also important (Knowles, Holton & Swanson, 2005).

Knowledge of the normal aging process and adult learning principles is essential to providing effective patient education to older adults. Normal aging changes the rate at which patients can process information. Each individual possesses a distinct style of processing information (Knowles et al., 2005). Individual learning styles include visual, auditory, active participation or a combination. People recall about 75% of what they see,

10% of what they hear, 90% of what is communicated both by sight and sound. Unless practiced extensively, new information will be forgotten almost immediately, decaying in as little as 18 seconds. Even when practiced, recall at best is only about 50%. This argues for providing written instructions (Glanville, 2000), as well as assessing for patient understanding. The “Teach Back” method is a component of the Better Outcomes for Older Adults thru Safe Transitions (BOOST) program created by the Society for Hospital medicine to increase communication between health care providers and patients as they transition from hospital to home (Schillinger et al., 2003). “Teach Back” is a method by which a patient’s understanding of a concept or topic may be assessed. By asking the patient to explain his or her understanding by “teaching back” the information it is possible to check provider ability to educate as well as ensure patient learning.

Elders experience changes in the psychomotor domain and may be able to learn cognitively, but be unable to actually perform the steps. Sensory changes include a decrease in peripheral vision, depth perception, light tolerance and ability to adapt to sudden changes in light and dark. Hearing high frequency sounds becomes more difficult. High frequency consonants and two-syllable words are more difficult to distinguish, and shouting can distort sounds. Musculoskeletal changes include joint stiffness, decreased range of motion and delayed reaction times. Increasingly difficult ambulation can result in falls. Short sessions with breaks enhance the ability of elders to participate (Phillips, 1999).

Older Adults’ Perceptions of Fall Prevention Education

Older persons often have an overly positive perception of their state of health in general and their risk of falls in particular – they actively disassociate themselves from

the “old” label and associated stereotypes (Hughes et al., 2008). In a study of hospital falls, the call light was used immediately prior to the fall in only 3% of the cases. At least 24% of those who did not use the call light felt they did not need assistance (Hitcho et al., 2004).

In a qualitative study by Yardley & Donovan-Hall et al. (2006), participants reported that they understood the potential usefulness of fall prevention education in principle; however older adults found fall prevention advice unnecessary, irrelevant or inappropriate for them. Hughes et al. (2008) also found that older people accept traditional fall-prevention messages, but viewed them as not personally relevant. Health Care providers may mistake this for ignorance and increase educational efforts, further alienating their target audience. Hughes reports that most people are aware of the likelihood of falling, but refused to accept that they are “fallers.” Fall prevention advice carries connotations that make elders feel they need to be given advice, focuses them on limitations, and prioritization of safety over personal dignity. Health care providers are concerned with safety, but older adults are concerned with social identity and relationships. Messages promoting health and independence may be more effective.

Self-perceptions play a role in the willingness of older adults to participate in fall reduction programs. A study by Nyman and Ballinger (2008) found that sustaining a fall might motivate men to prevent further falls because it threatens their masculine identity. In another study, those that saw falls as being unpreventable were less likely to recover from a fall or consider prevention interventions (McInnes and Askie, 2004). Low self-esteem, depression and hopelessness may leave older adults with little motivation (Phillips, 1999). Clemson et al. (2004) found that the presence of proactive coping

strategies for dealing with stress and an active social life have a significant protective effect on older persons with a risk of hip fracture. Elders may recognize that making behavioral changes will benefit their health, but it can come at a cost and can cause resistance if it affects self perceptions of social standing and independence (Levensky et al., 2007).

Older adults are cautious about accepting home safety advice, and reluctant to do balance training exercises, though exercise has been shown to be an effective intervention for fall prevention. Simpson, Darwin and Marsh (2003) report that “taking care” is the primary fall prevention strategy older people are likely to use. They suggest health care workers build on what participants are already doing as an effective strategy. In a study by Mahoney et al. (2007) one-third of participants refused physical therapy, believing it to be ineffective. Yardley & Donovan-Hall et al. (2006) showed that strength training is effective for fall reduction, but difficulties occur with motivating elders to begin a program, and with adherence to the program. Typically fewer than 50% of those invited to take part in falls-prevention interventions in the community participate. Research suggests older people prefer to exercise at home but with some professional guidance. Frail older people interviewed as hospital inpatients were often unaware that any form of exercise could help prevent falls, and they viewed exercise as too vigorous an activity for them to undertake.

Adherence

Healthcare workers often find it difficult to accept that patients don't follow advice. Non-adherence to medical treatment and advice is considered one of the most significant problems facing medical practice today. Bellamy (2004) reported compliance

with behavior modifications such as diet ranges from 8-70% and seat belt use ranges from 5-59%. Christensen (2004) found rates of non-adherence to treatment recommendations are 20-40% for acute illness, 30-60% for chronic illness and 80% for prevention. The result is reduced treatment effectiveness, poor health outcomes, and increased financial and social costs (Cleemput, Kesteloot, & DeGeest, 2002). In a study by Glanville (2000) on the economics of compliance, it was shown that an intensive preventive education program saved two dollars in patient readmission costs for every dollar spent on the intervention. It was found that participant recall and follow-through directly relate to the amount of time the provider spends discussing the topic during the visit. Patient education requires adequate resources such as time and materials, all of which are hard to allocate when budgets are limited, and patient care needs are escalating due to increased acuity.

In a study by Bellamy (2004), it was recommended that instead of using the term “compliance”, which emphasizes healthcare provider control, the term “therapeutic alliance” should be used, which focuses on partnership between health care provider and patient. Maximizing therapeutic alliance involves identifying barriers to patient understanding, identifying barriers to compliance, and assisting the patient to develop his or her own treatment plan.

Education Recommendations

According to Piccininni (2000), few curricula devote time to teaching students how to be effective educators. The article by Piccininni presents recommendations for patient education. In the field of education, it has been theorized that three domains of learning, cognitive, psychomotor and affective exist. According to the author, health care

providers often neglect the affective domain as they educate patients; and it is the affective component of the doctor-patient relationship that may be the key to improved outcomes. This relationship is based on mutual respect that exists between patient and doctor. Patient education can help develop this relationship by making both parties true partners in developing and implementing the plan of management, leading to a successful outcome. Without affective domain learning, it is unlikely that changes will occur for more than just a short time. To produce a voluntary change in patient behavior, learning must occur in both cognitive and affective domains. Attitudes towards learning and rapport with the teacher also influence learning abilities (Phillips, 1999), thus a change in patient attitude is crucial. The best results may be found from educational plans that are individualized for each patient. Glanville (2000) goes on to state that for effective patient education to occur it is important to use an open communication style, include written instructions, and address barriers. Successful falls prevention programs use adult learning principles, problem-solving techniques and coping strategies to engage older people directly (Clemson et al., 2004).

A study by Phillips (1999) examined effective teaching plans for older adults. This includes assessment of learning needs, individual learning styles, barriers to learning and consideration of the learning environment. It is recommended that lighting is soft, ensuring patients wear hearing aids and glasses, using a low voice, keeping distractions to a minimum, and the temperature comfortable. Offering pain medication and toileting before a teaching session is also important. Elder patients are more likely to succeed in incorporating information into lifestyle changes if goals are attainable and independence is encouraged. A combination of written material, illustrations, oral presentations and

practice sessions can enhance the amount of information retained. Language free of jargon and medical terminology should be used. Poor compliance is often the result of an inability to understand instructions. Having patients repeat instructions improves comprehension.

Written material can also be a barrier. Material should be of larger print – font sizes between 12 and 14 in Times roman text are easier for older adults to read. Warm colors such as red, orange or yellow enhance visibility. Printed materials should be written on a 5th-8th-grade level (Bellamy, 2004). It is important to address the issue of adult literacy as well. Some older adults are functionally illiterate (reading on fourth-fifth grade level or less); adult literacy is currently estimated at 21-23% (Glanville, 2000). Embarrassment at being unable to understand written information may prevent active participation (Phillips, 1999). Those with less formal education have a greater need for health education and therefore additional effort should be made to meet these needs (Bellamy, 2004).

It is essential to train health care providers to deliver education that is sensitive to the needs of diverse individuals with varying degrees of health literacy. A study by Primack, Bui and Fertman evaluated an innovative, theory-based, educational intervention involving social marketing and health literacy. Social marketing uses concepts from commercial marketing to inform the planning and implementation of health promotion programs. Health literacy is the degree to which individuals obtain process and understand basic health information and services needed to make appropriate health decisions, and is a critical determinant of health care outcomes and health care

costs. This intervention was shown to increase the comfort of medical students with production of educational materials for a broad audience (2007).

Another barrier is inadequacy of advice given by health care providers on healthy lifestyles, which has been documented in population-based studies. It has been shown that few health care providers provide adequate recommendations on healthy lifestyles. Wofford, Greenlund, Croft & Labarthe (2007) found that receiving recommendations from health care providers resulted in an improvement in nutrition, but for exercise, receipt of information did not increase likelihood of participation. Communication is important because it improves patient adherence and produces health benefits. Patients who are given more information about their illness have fewer problems and report greater satisfaction with health care providers (Bellamy, 2004).

The inadequacy of health promotion and the lack of preventative health recommendations by health care providers may also be due to lack of understanding of what older adults are capable of. Most studies that examine preventive health behaviors focus on young or middle aged adults and may be due to assumptions that illness is “normal” in older adults, and that altering longstanding behaviors late in life is too difficult. Research has demonstrated that engaging in preventive health behaviors can decrease morbidity in older adults, and that older adults are not unduly resistant to trying (Levy & Myers, 2004).

A qualitative study by Yardley & Donovan-Hall et al. (2006) identified factors common to older people in community health settings that may promote or inhibit participation and adherence to falls-related interventions. Older adults were motivated to participate in strength and balance training by a wide range of perceived benefits and not

just reduction of falling risk. Participation was also encouraged by a personal invitation from a health practitioner and social approval from family and friends (Mahoney et al., 2006). Barriers included denial of falling risk, the belief that no additional fall prevention measures were necessary, practical barriers such as transport, cost and a dislike of group activities. Principle predisposing factor was personal experience with exercise. The most important precipitating factor was a personal invitation to take part in an intervention, especially from a health professional. Family support was also very important.

Yardley & Donovan-Hall et al. (2006) recommends that traditional educational messages of risk reduction be replaced with promotion of activities that enhance fitness, balance and mobility. However, it is important to continue delivering risk messages; removing them entirely might further increase the social stigma of falling. Older people may not be persuaded to undertake physical exercise if they don't perceive an immediate and pressing need and benefit (Simpson et al., 2003).

Nursing Role

Healthy People 2010 (Office of Disease Prevention and Health Promotion, U. S. Department of Health and Human Services, 2009) identified injury and violence prevention as one of the nation's leading health indicators for the future. Nurses are in pivotal roles to identify and reduce risk for falls because they coordinate, implement and evaluate patient care that is administered by the entire health care team. Although falls often reflect a particular patient's fall risk, falls are a nursing-sensitive quality indicator (Poe, Cvach, Gartrell, Radzik, & Joy, 2005). Patient fall rates are perceived as the indicator that could be most improved through nurse-led safety strategies or interventions (Tzeng & Yin, 2008). Torres (2007) showed that patient perceptions and satisfaction

could be positively impacted by innovative nursing strategies that are proactive and anticipate patient's needs. Tinetti et al. (2008) reported that dissemination of evidence about fall prevention, coupled with interventions to change clinical practice, might reduce fall-related injuries in older persons. Karius et al. (2006) implemented an education program to alert nurses to specific risk factors and showed stabilization in the fall rate, with no severe injuries.

Patient level of satisfaction with nursing care depends principally upon the patient's perception of how well the nursing staff has been able to meet his or her needs. Patient perception is also influenced by the quality of attentiveness or emotional awareness that they bring to the encounter. In a study of nursing role in improving patient participation in interventions, Resnick et al. (2003) reported that nurses perceived being knowledgeable, a professional first impression, eliciting support from other staff and family, using a personal approach, emphasizing benefits, and using positive testimonies from other older people as important factors. The nurse has to demonstrate her availability in a manner that the patient finds meaningful or comforting. The patient perception of nursing quality depends on the ability of the nurse to meet patient needs as well as foster a relationship with the patient (Meade et al., 2006).

Nurses are advised to assess fall risk, communicate risk within and across disciplines, educate patients and families, and implement environmental safety standards with minimal use of physical or chemical restraint. Effective patient education can increase compliance with treatment regimens, facilitate recognition of adverse events, improve clinical outcomes, and decrease healthcare expenses. Nursing standards and

guidelines indicate nurses have a legal, moral and ethical responsibility for patient education (Scaramuzzo, 2007).

Conclusion

Older adults are more likely to experience serious health effects from falling in the hospital, with financial and quality of life consequences. When older adults are hospitalized, they are often anxious and overwhelmed by the amount and complexity of information they receive, decreasing their ability to comprehend and retain information essential to self-care management (Scaramuzzo, 2007). Reviews have concluded there is no evidence for implementation of specific strategies that consistently reduce falls in the inpatient setting (Hook & Winchel, 2006). McInnes and Askie (2004) found in clinical practice it is important to consult with individuals to find out what they are willing to modify, and what changes they are prepared to make to reduce risk of falling. The Joint Commission has instituted a safety program called “Speak up” that encourages patients to be active participants in their care (Scaramuzzo, 2007). Health care workers of the future will be called upon more and more to focus on preventive health to save costs to the hospital and to the patient’s quality of life (Glanville, 2000). This study seeks to discover patient perceptions of current inpatient fall education messages. It is anticipated that by involving the patient in design of educational materials, evidence can be generated to develop educational programs that will help reduce the fall rate.

CHAPTER III: METHODOLOGY

Research Design

Phenomenological analysis was used in this qualitative study because it offered insight into how a given person in a particular context makes sense of a given phenomenon. There is a lack of research into reactions to health promotion messages in the hospital setting, thus this approach provided an opportunity to explore the lived experience of hospital patients and fall prevention impressions. Analysis of participant interviews was performed to discover themes related to fall prevention education. This hermeneutical analysis yielded information useful to the design of inpatient education efforts to promote patient participation. Ten interviews of participants were conducted, each lasting between 20 and 45 minutes. The interviews were audio recorded with no identifying information other than an ordinal number, date, and basic participant demographic information.

The data was transcribed and thematic statements were isolated using the selective approach described by van Manen (1990). Van Manen's approach is a combination of interpretive and descriptive phenomenology that attempts to transform personal meaning and experience from interview texts into disciplinary understanding (Dowling, 2005).

Setting

Located in the Southeastern United States, the hospital at which the study took place is a 700 bed referral center for the region. In this hospital approximately 39% of the patients are aged 65 years and over. According to the CDC (2006), nationally 38% of inpatients were aged 65 years and over in 2006. In addition, the fall rate for this hospital

in 2008 was 3.77, which is above the National Database of Nursing Quality Indicators (NDNQI) national average of 3.09 for hospitals of similar size.

Population and Sample

Using purposive sampling, participants over 65 years of age both male and female from a variety of units were included in the study. Choosing participants with various experiences increases the possibility of shedding light on the research question from a variety of aspects and enhances credibility (Polit & Beck, 2008). Letters were sent to nurse managers of non-critical care units requesting dates and times that were convenient to the participants and to the unit for interviews to take place. A visit to a unit consisted of checking in with the nurse manager and the charge nurse. The list of current patients was analyzed with the help of the staff nurses and support personal such as social workers and discharge planners for appropriateness. Participants were chosen who had been identified as being at risk for falling and whose care would not be affected by the interview.

Those with mental impairment, critical or unstable condition, and communication difficulties such as non-English speaking or aphasic were excluded. This exclusion criterion was established to provide a sample population providing data transferable to the general hospital population, and to increase the veracity of the interview outcomes. The amount of data necessary to answer a research question varies depending on the complexity of the phenomena under study and the data quality. In this study, at ten interviews, data saturation was reached as answers began to show redundancy. The interviews ranged in length from twenty minutes to over an hour, and contained a

richness of data that allowed for the development of themes that revealed the lived experience of being an inpatient at risk for falling.

Protection of Human Subjects

The Institutional Review Board of the hospital where the study was conducted and the Institutional Review Board at Western Carolina University approved this study (Appendix B). The researcher has completed Human Subject Protection Education. This research did not entail possible risk of harm to the subjects other than emotions that might have been brought up during the interview. Permission to speak with participants was obtained from nurse managers on units willing to participate and participants were assured that they might stop participation at any time, and that participation was entirely voluntary.

The benefits of this study outweigh the risks for several reasons. Participation might increase awareness of fall risk and the importance of prevention. The outcomes may be used to improve fall prevention education materials and reduce the fall rate in the future. In addition this study poses virtually no risk to the participants.

Informed consent was obtained (Appendix A) and the form was stored in a separate file with no information that could allow the data collected to be connected with the informed consent. Audio recording of the data was collected with participant's permission; note taking also took place. Participant name and medical record number were not used, nor was the participant's medical record accessed. Basic demographic information was collected and may be published as group data, but any identifying information was removed. A record was kept of the unit on which the interview took place using the audio recorder or a note next to demographic information. Information

was stored in a locked office or home using password protected computer accounts. Participants were not asked to disclose any identifying data, and the transcripts of the audiotapes sent to the transcriptionist contained only an identifying number; all other identifying information was removed. Each participant was assigned a pseudonym used for transcription. A copy of the demographic questions is attached (Appendix C). The transcriber did not have access to the names of any participants. No data related to illegal activities was obtained. No deception was involved in this project.

Any identifying participant information will be removed before publication of the data. Anonymity of all participants will be maintained during data presentation or publication, with the use of pseudonyms when quotations are used to illustrate findings. The researcher will destroy all audiotapes and transcripts after the conclusion of the study.

Instruments

Interview questions from a qualitative study by Yardley & Donovan-Hall et al. (2006) on older people's perceptions of advice about falls prevention were used with permission of the author. These questions were developed by Yardley to explore previous experiences of education regarding falling (Appendix C). These questions explore participant experience with fall prevention messages in the media, from health professionals, among family and friends, and other communications and interactions.

The questions by Yardley were used in several initial practice interviews. As the interviews progressed, additional questions about how participants feel about the fall prevention communications they have received were included. Participants were also asked about what advice they would give to others about fall prevention, who they

believe is at risk for falling, and if they felt they were at risk for falling. Questions about education were also asked, including participant preferred learning style, and what sort of educational interventions might be acceptable. Participants were also asked about their participation in and attitudes about exercise programs. Saturation of types of questions occurred at approximately the fifth interview.

Data Collection

Data collection took place over a period of two weeks, limiting the degree to which data changed over time, and enhancing dependability. The interviewer knocked on the participant door and requested permission to enter. If the participant agreed, the interviewer introduced herself by giving her name, occupation and status as a graduate student. The interviewer described the nature of the study and asked if the participant would like to answer questions about fall prevention education for thirty to forty five minutes. Before beginning the interview, the participant was asked if he or she needed anything, if there were any pain or toileting needs that should be addressed and if any interruptions were expected. If the participant was not alone, a request was made for an individual interview, however if the participant wished for friends or family to be present, a notation was made in the field notes. If the participant felt comfortable, and all needs were met, the informed consent form (Appendix A) was discussed with the participant, and was signed. With the permission of the participant, the session was audio recorded. The interviewer turned on the audio recorder and stated the demographic information of the participant and the number of the interview. The interview questions were asked (Appendix C), however the answers given by the participant guided the order of the questions. As information was gathered, additional questions were asked to clarify and

explore topics of interest in greater depth. When the interview was complete, no new information was being discussed or the participant wished to quit, the audio recorder was turned off. The participant was thanked and a photocopy of the signed informed consent form was brought to the participant room.

Data Analysis

Selecting the most appropriate method for data collection and the amount of data needed are important in establishing credibility (Polit & Beck, 2008). Data interpretation for this study was performed utilizing van Manen's selective highlighting approach for determining themes describing lived experience (1990). The interviews were professionally transcribed and were read several times to determine what statement(s) or phrase(s) seem particularly essential or revealing about the phenomenon or experience being described. These statements were underlined and highlighted. Certain themes began to emerge as commonalities in the various descriptions. Phrases and statements that captured the meaning of the themes were copied and pasted using a word processing program into a table that allowed statements from each interview to be compared. By referring to the table and the interviews it was possible to create, eliminate or combine themes until no new themes appeared and the highlighted phrases were thematic to the participant experience.

During this process the interviews were read and re-read multiple times, and in addition were read while listening to transcripts to add to the trustworthiness of the data. During interviews, field notes were taken to provide a comprehensive and vivid recording of what occurred. These notes were referred to as well as participant tone and emphasis

on the audio recording to help elucidate themes. The best approach to data analysis was discussed with colleagues and thesis committee members.

Links between the circumstances and opinions of each participant to their views on fall risk prevention and educational materials were found. Themes and patterns were determined to be transferable to the interviews as a whole. This was tested by explicitly searching for disconfirming data. The researcher critically reviewed the emerging analysis. Recording the alterations made in the researcher's decisions during the analysis process enhanced dependability.

Credibility was increased by sharing the data with an expert on fall prevention at the hospital at which the interviews took place. The expert agreed with the themes and supporting evidence. Van Manen (1990) encouraged the comparison of results with themes found in other studies. By comparing these results to other studies asking similar questions, dependability was achieved. Analysis was completed when no new additional themes and patterns were identified.

Limitations

The purposive sampling used in this study may not allow for transferability of data. Due to the small sample size, the demographics of the participants may skew the data in a particular direction. In addition, it is not always possible to know if a person was mentally competent to participate in an interview. Participants may have hidden their level of confusion, or it may not have been apparent to the interviewer. Poor memory may have obscured the fact that educational materials were indeed disseminated; though the participant might have claimed the contrary. Pain medication as well as other medications may have caused participants to have memory or interpretation issues,

however efforts were made to reduce these threats by pre-screening participants with the charge nurse.

Veracity may also have been an issue. Participants may have felt threatened by the questions and therefore not have answered them truthfully. Shame or embarrassment might have prevented sharing of a history of falls or reasons for falls. Participants may also have attempted to answer questions in a way that pleased the interviewer, also skewing the results. Participants might have been concerned about protection of personal information as well, and thus not have been truthful. Lack of self-knowledge by the participant may not have allowed an accurate assessment of learning styles or preferred methods of learning.

The skills of the interviewer also may have come into play. It is possible that different outcomes might have been achieved if the interviewer were more skilled or had more experience with the method. The design and choice of questions might also have played a role in providing answers that are meaningful. As the interviews progressed, additional questions were added. The questions initially focused on sources of fall prevention education. The questions changed in response to initial interview results as interactions with participants revealed the usefulness of adding questions about how they might design a fall prevention message, advice they might give those at risk for falls, and their participation in and attitudes about exercise programs. It is possible that richer data would have been revealed if all questions could have been asked of all participants. It was not possible to revisit participants and ask additional questions because they had already been discharged, and it was not within the scope of the IRB approval. Questions may have needed to be reworded or the order of questions altered to elicit richer responses,

which might have caused the data to be uneven. In addition, there was no attempt to have the subjects validate their answers.

The lack of privacy could also have caused problems. Interruptions by support staff, medical personnel, and the care needs of the participant at times did not allow for a full, in depth interview. It is not possible to know how different the answers might have been without the interruptions. It was not always possible to schedule uninterrupted time for interviews, however efforts were made to minimize this problem by communicating with nurses and with the participant. In addition, the presence of friends or family in the room may have influenced the manner in which the participant responded.

Having only one researcher for this qualitative study is a final limitation. It was not possible to discuss the data analysis with another researcher familiar with the information on the same level as the primary researcher. However, veracity was enhanced by asking for expert opinion of the results, and by asking for input from colleagues and the thesis committee.

In conclusion, the limitations of the study may not allow for transferability of conclusions to the general patient population. However, it is hoped that the themes and patterns that emerged that will allow for design of further studies in this area.

CHAPTER IV: RESULTS

Sample Characteristics

A total of ten people between the ages of 69 and 98 years were interviewed from a variety of inpatient nursing units including adult medicine (5), surgical (4), and one from oncology. The age distribution of the participants was: 69, 73, 73, 76, 80, 80, 81, 88, 92 and 98. Four of the participants were male and six were female. Five of the ten participants used a walker as an assistive device. All ten of the participants were Caucasian. Two of the participants were not documented as being at risk for falls at the time of interview, but were included for the purpose of searching for disconfirming evidence. Reasons for admission were varied: fatigue, seizures of unknown origin, cellulitis, gout, pneumonia, diverticulitis, cholecystectomy, colon cancer, leukemia and hip replacement surgery. Seven of the participants had sustained a fall within the last year. Three of these falls can be described as not being preventable. Two were due to seizures of unknown origin, and the other was caused by spinal numbness that resolved with surgery. These three participants also had in common a history of multiple falls within a short amount of time. The other four participants' falls resulted from tripping, including one that occurred in the hospital room a few days prior to the interview. A fall at home for one of the participants not reported to be at risk for falls also had occurred. Four of the falls resulted in participant injury: one to an arm, which included an active wound with a bandage during her current hospitalization; a broken hip; a severe knee bruise sustained in the hospital; and a rotator cuff tear for one of the participants documented as not at risk for falls who had in fact fallen.

Participant's Previous Experience with Falls Prevention Education

Four participants reported discussing fall prevention with family, three with doctors, four with nurses and two received education from formal pre-op classes for hip replacement surgery. Four participants had seen information on television, and two from reading pamphlets; one from the American Cancer Society, and another from a monthly insurance magazine. Three participants routinely used a computer to search out information for health prevention, though none claimed specific information found regarding fall prevention. The discussions with family often consisted of a warning such as, “mother, don’t fall” instead of fall prevention advice. Nurses emphasized helping with toileting and primary care, and physicians were the most specific, providing home modification information such as lighting and footwear, and care with orthostatic blood pressure changes.

When participants were asked about their experience with fall prevention education, the information they described was not in depth for the most part, and several participants were unable to give any specific interventions for fall prevention. There was a sense of fatalism in many participant comments. When asked about advice she had received, one woman said, “I don’t know! What would they say, I fell...and I told them I fell, so what is there to say?” At some point in almost all interviews, participants used the words “be careful” as fall prevention advice they had been given or would give to others.

When participants could describe education relevant to reducing risk of their falling, the information was highly specific to their personal experience. A man who worked in construction described precautions with ladders in great detail, but could give no other information, “I’ve seen on TV those little stick figures...make sure the ladder’s

properly footed.” A woman who had fallen multiple times at home described modification of her home environment, “I should be careful what kind of shoes I wear, and not have things on the floor – throw rugs, stuff like that.” Those with hip replacements gave detailed information about pre and post-operative fall prevention interventions, “[they said] not to bend forward over forty degrees and not to pick up things on the floor.”

Few participants mentioned precautions related to being hospitalized. When prompted, a few mentioned asking for help before getting out of bed, “When I first came in, they did go over if I needed some help to get out of bed and go.” A 73 year-old woman hospitalized for acute onset leukemia was not documented as being at risk for falling. When told that people in the hospital were at a higher risk for falling, her response was, “I’m not sure everyone is, that’s a bold statement.” Further discussion of environmental factors that put participants into higher risk categories led to the following,

The latest thing I’m having to remember is, am I attached to my [IV] or not? Is it on battery or [plugged in]. So I always turn on the light and make sure first thing because otherwise I could get tangled up and knocked down...so that would be a risk because I may go to sleep and they ...hang a bag...so I do have to make sure of that.

Another participant attached to an IV pole, did not see the pole as a fall risk and reported using the IV pole as a fall prevention tool, “I walk with the [IV poll], I always hold onto it.”

Participants did not report receiving fall prevention education related to exercise. Though several participants reported exercising, and seemed to understand it’s

importance as a health benefit, only one participant (one of the participants not documented as being at risk for falling) was aware that physical conditioning is an important component of preventing falls,

There's a link between exercise and everything. It pains me to see our young people so inactive, I just want to say get out, do something with your life and you see the obesity and diabetes that's coming from this lifestyle.

When asked why he likes to walk, one participant said, "It makes me feel better and they said I could walk." A 73 year-old man with extensive physical therapy experience said, "I found that up until age 30 I wasn't exercising worth a damn and now this has got me back in there." Another participant, also male, was even concerned that exercise might cause falling, "you may think you can do it better, but you could easily fall." One participant's response to being asked if exercise can prevent falls said, "well, I use a walker."

Participant Perceptions of Fall Prevention Education

There were mixed responses to questions about fall prevention education. Some participants expressed a positive view of the information and felt it was important for those at risk for falling. One woman said, "I don't mind being told not to do something." Two participants made comments about not wanting to fall again. One man said, "I'll probably be a little more careful than what I have been [when I go home]. I don't like it [falling] at all." One of the participants not documented to be at risk for falling said, "I'm impressed with all the precautions they have here on this floor." Another man was appreciative of the education he received for his hip replacement, "you're scared [of what might happen if you fall]. It's not a good feeling you know...so helpless."

Many participants did not see the point of fall prevention education. One woman said, “I just don’t think about it.” Another woman commented, “I didn’t pay much attention cause I hadn’t fallen.” Some felt the advice did not pertain to them, “it’s always about that woman going up the stairs and I don’t go up the stairs anymore.” One participant who insisted that her walker would prevent her from falling said, “I just dismissed it...I never thought I’d fall.” An 88 year-old woman spoke of her experience with mobility education, “everybody wants me to go on a walker...and pride gets in your way, you know...I didn’t want to use those walkers. I don’t need something like a crutch...I can still do it on my own.”

Many of them did not feel that falling could be prevented other than by “being careful.” For the most part falling was presented as being accidental, and thus inevitable, “we just go around doing things, hoping nothing’s going to happen,” “the biggest percentage of them is just really accidents like getting up and tripping,” “you can fall anywhere if *it* hits. If *it* takes a notion to hit you...I don’t know what *it* is.” A participant involved in construction said, “I guess falling is more work related.” An older woman said her mother had warned her about falling when she was a young girl. A participant was concerned that her daughter had slipped and fell due to water on a recently mopped floor. Participants had difficulty realizing that falling could apply to their situation in the hospital or at home.

When asked who was at risk for falling, more than one participant mentioned that older adults were more likely to fall, but did not include themselves in that group, and qualified “older” as being not an age, but a health status. “When I was younger I thought old people weren’t stable, but now that you’re older, it depends on the person, you

know?” another participant commented, “I see people in their fifties who are old and I see people in their eighties who are young.” A 69 year-old man was very aware of changes with aging, “...your physical situation is such that you could hurt yourself more easily as you become more brittle as you get older.” A 73 year-old man with a walker, and a recent toe amputation due to diabetes, in addition to obesity and seizures of unknown cause said, “falling is the last thing on my mind.” When asked what his risk for falling was on a one-to-ten scale, with ten being the greatest risk for falling, he said, “I’d say a two.”

Though many of the participants were admitted to the hospital for serious illnesses, they had difficulty seeing themselves as weakened, or in an altered state that might put them at a higher risk for falling. When asked to describe the type of hospitalized participant who might be at risk for falling, a participant with colon cancer and internal bleeding said, “the participant is here for something debilitating and they’re going to be weaker, if they’ve had surgery, and so they overestimate their capacity.” When asked, “do you think you fall into that category,” he replied, “Nah...I know what my limitations are.”

A few participants were aware of some limitations. “But as you get older you’re not as quick to regain your balance when you trip on something...so I’m very careful anymore...I watch where I’m stepping inside the house.” Another participant in for hip replacement said,

When we get older, I know myself, you know, you don’t have the balance. Many times you do something or walking and turn around and it feels like you almost could have landed on the floor. The balance isn’t the same.

When asked if he was at risk for falling, one participant said, “I’m always at risk of falling.”

Several participants expressed frustration or aggravation with the way health care providers give advice, “they treated me like I had Alzheimer’s” was one man’s response to fall prevention education. One participant said, “yeah, yeah, yeah, prevent *falling*, I’ve heard it over and over and over again.” And another woman said, “it feels like I’m four years old” she went on to say, “There’s some things I agree with but there are a few I don’t agree with.” One man had on his own socks. The nurse told him she didn’t want him to use his own socks and to use non-skid slipper socks instead, “I told her I was going to do it [wear my own socks] anyhow and I did. I don’t mind people tell me what to do, but I’m not accustomed to it...she wasn’t rude about it...I just didn’t want to do it.” Another woman said, “Sometimes I take it in one mood and sometimes I take it in another. It depends on what it is, and who it is, and how it is.” One woman brought up the idea of being perceived as too old several times, “once you’re too old, you’re too old for everything...that’s what I feel other people think.” A participant who had a great deal of physical therapy said, “I don’t like therapists. They’re pushy. I don’t like pushy.”

An exception to participant resistance to fall prevention messages was their response to pre and post-operative instructions. Participants had a remarkable memory for this education and could name specific interventions, even if the surgery had been years in the past, “It helped a lot because I knew what to do and what not to do.” A participant with a hip replacement described his education,

We went to pre-op [and] I had a class and it was very instructive. They had pictures and drawings about how to lay down and all that and they tried to impress the risk...what can happen if you fall.

Reception of education also depended on who was giving the advice. There was a great deal of respect for physicians. Many of the participants expressed warm feelings for their physicians. One participant reported, "I have great rapport with all my physicians." One woman said, "If you are not going to listen, why bother going to a doctor?" When asked from whom he liked getting advice, a male participant who had spent 16 years on a submarine said, "experts. You are more knowledgeable in an area than I am; I would assume you would ask me questions about submarines..." Another woman said, "I wouldn't get angry with people I know and people that I trust." when asked, "what if your doctor told you to be careful?" she replied, "Yeah, I would probably...I'm not ornery like that."

Participant Recommendations for Improving Education

Participants expressed a variety of opinions on how they like to receive information. Five participants mentioned they enjoy reading, "You learn a lot on reading." Only two mentioned the television as a preferred mode of education. One woman specifically said, "I don't pay attention to the television." Two participants like to learn by doing, "feel your way around and learn that way." Two mentioned using the computer to seek out information and one even described specific websites that are reliable sources of health information. Another participant mentioned enjoying college classes, "I'm adventurous, I like to learn."

During the interview process, though not always overtly expressed, it became evident that participants were more likely to adhere to recommendations when a team approach was used involving the participant, family and health care team in designing interventions. When asked whom they liked to get advice from, seven participants valued advice from friends and family. One said she likes getting advice “from people I know and trust.” Another participant said, “I’m all about my family.” Six participants would accept education from their physician. One woman said if her physician gave her fall prevention education, “I’d be careful.” Only one participant was not sure whom he would trust. An 88 year-old participant described a conversation she had with her son. This woman was extremely independent and unwilling to accept any fall prevention advice.

[Her son] said, ‘now we’re gonna make a little deal and when I ask you how you are, you’re not going to say fine. If there’s something wrong, you tell it. And if there’s something wrong, I’ll tell you’...and we did that for years. That’s the sign of somebody who really cares.

A 73 year-old man with gout spoke of his frustration with a physical therapist that had created a plan of care that left the participant too tired to walk after doing leg exercises. The participant described his solution; “I got pretty frustrated with that. One day I hollered at them. I said, let’s walk first and then do the leg exercises.” His response when asked how it felt to have his ideas taken into consideration, “Terrific.” A participant described her involvement in her own learning, “I choose where I get my advice and I choose the workshops I attend.”

Table 1. Summary of Themes and Subcategories

Participant's Previous Experience with Falls Prevention Education

- Lack of information (only suggestion for reducing fall risk was to be careful, poor understanding of link between physical condition and fall prevention, few sources of information given, unaware of fall risk in hospital)
- Participant could describe education relevant to reducing risk of falling (non skid rugs, get up slowly, ask for help)
- Interventions described were specific to personal events (if a ladder was involved in a fall, the education pertained to ladder use; if a walker was involved in the fall, walker use was mentioned; pre-operative and post-operative interventions)

Participant Perceptions of Fall Prevention Education

- Education is helpful when it pertains to the participant, or to those who are at risk for falling (participants do not perceive themselves to be at risk for falling, do not accept changes with aging)
- Participants feel talked down to (frustration and aggravation with the way health care providers give advice)
- Education is not useful because falls are accidents that are not preventable
- Reception of education depends on who is giving the advice (doctor, family, qualifications)

Participant Recommendations for Improving Education

- A variety of delivery methods should be used including video, audio, written materials and computers (participants expressed a wide variety of preferences)
- Involve participant, family and health care team in designing participant specific interventions (tailor education to needs of

Conclusion

The results of this study reveal a depth of information about how older adults feel about fall prevention education. Previous experience with falls prevention education included a lack of information and few sources. There was a poor understanding of the link between physical condition and fall prevention, and most participants were unaware

of the high risk for falls in a hospital setting. Participants were able to describe education relevant to reducing the risk of falling including the use of non skid rugs, getting up slowly, and asking for help. It was found that interventions specific to personal events were well remembered. Perceptions of fall prevention education included that education is helpful when it pertains to those who are at risk for falling, however participants did not perceive themselves to be a fall risk, and did not accept changes with aging. Participants expressed frustration and aggravation with the way health care providers give advice. Many felt that education is not useful because falls are accidents that are not preventable. In addition, it does matter to participants who provides fall prevention messages.

CHAPTER V: DISCUSSION

Summary

This study shows that traditional fall prevention education messages emphasizing changes with aging and the dangers of falling are not well received by older inpatients. This study was similar to a study by Yardley, et al. (2008) of community dwelling elders and confirms that participants do not believe themselves to be at risk for falling, do not believe falling is preventable, and for the most part do not feel fall prevention education messages applied to them. Unlike the study by Yardley, this study shows that participants are open to fall prevention education if it is delivered in an appropriate manner. Designing fall prevention education that is in line with the desires and needs of this population could decrease the fall rate in this high risk population.

The prevention of falls is an important issue if it can prevent declines in function and independence, and the associated increase in costs of injuries. The major risk factors for falling are diverse and many of them, such as balance impairment, muscle weakness, polypharmacy and environmental hazards, are potentially modifiable (Akyol, 2007; Cranwell-Bruce, 2008). The interventions designed to address these risk factors must share the same diversity, given that evidence for the effectiveness of a single intervention in preventing falls has been inadequate (Oliver et al, 2004; RAND, 2003). Implications for older inpatient education include that it matters who provides fall prevention messages, what messages should emphasize, when and where messages should take place and how they should be delivered (see Table 2).

Table 2. Implications for Education

Preferred Educators

- Messages should come from trusted family, friends and professionals
- Educate health care providers on use of evidence-based fall prevention interventions and teaching methodologies

Content of Fall Prevention Messages

- Emphasize the positive – what the patient can do to promote independence
- Build on patient strengths – what the patient is already doing well
- Promote exercise
- Teach that most falls are preventable

Timing of Fall Prevention Education

- Teach fall prevention interventions before, during and after hospitalization
- Repetition is important

Location of Educational Efforts

- Teach fall prevention interventions in the hospital, physicians office, home and work-place

Effective Teaching Strategies for Fall Prevention Education

- The manner of delivery matters – respect patient independence and life lessons
- Involve the patient and family in planning interventions
- Tailor the education to specific patient needs
- Use multimodal delivery
- Practice with the patient
- Assess for understanding

Preferred Educators

An important implication for education is that it matters who provides fall prevention messages. Participants reported they would be more likely to follow advice if it came from a physician or trusted family or friend. Educational efforts that focus on enlisting these valuable members of the health care team should be well accepted by the

older inpatient population. This is supported by studies showing that when invited by a family or friend, participants are more likely to participate in a fall prevention program (Federwisch, 2009; Mahoney et al., 2006).

If health care providers are to be more involved in fall prevention education, it follows that providers need direction on how to best deliver these important messages. This study shows that participants did not receive a great deal of information about fall prevention. Evidence shows that nurse perceptions of why patients fall, as well as fall prevention interventions are not accurate (Perkins et al, 2004). Additional research shows that patient education is used more often on floors on which staff receives education about how to prevent falls (Krauss et al, 2008). Studies have shown an increase in participation in healthy behaviors if health care providers provide adequate recommendations (Wofford, et al, 2007). Providers could be taught to better identify those who are at risk for falling, to provide information on evidence-based fall prevention interventions such as beginning an exercise program, and to use teaching methodologies such as assessment and motivational interviewing to increase participation.

The search for disconfirming evidence highlights the need for increased nursing education in the area of fall risk assessment. In this process, interviews with two participants who were not documented to be a fall risk were analyzed. Though one participant initially appeared to be at low risk, the interview provided information that she did not see herself as being at risk in a hospital setting due to her physical condition prior to admission – she did not understand that her condition had changed due to her recent leukemia. The other participant was one of the most in denial of being at risk for falling, stating flatly that she did not plan to make any changes in her routine in the

hospital or at home to prevent falling, though she was 88, using a walker and extremely weak. The fact that the nurses did not consider these two participants to have any fall risk indicators implies that the nurses caring for these participants did not accurately perceive or interpret the many factors present in their situations that could contribute to falls. This conclusion is supported by research that shows that a primary cause of falls involves inadequate staff communication, orientation and training (Tzeng & yen, 2008). Providing health care workers with education on how to accurately assess patients for fall risk should lower the fall rate (RAND, 2003; Dacenko-Grawe & Holm, 2008).

Since patient fall rates are a nurse sensitive quality indicator, it is important that nurses be taught to use strategies that are proactive and anticipate individual patient needs (Torres, 2007). Nurse sensitive quality indicators are compiled by the NDNQI as a way for hospital nurses to determine the effectiveness of nursing interventions. By comparing outcomes with NDNQI benchmarks it is possible to assess changes in patient outcomes as nurses seek to find the interventions that have the most impact. Staff education that focuses on the use of strategies such as scripted hourly rounding would help nurses' meet patient needs and build trust. Motivational interviewing is a technique that has been shown to be useful in helping patients understand and participate in health interventions (Levensky et al., 2007). Another recommendation for health care provider education is to help patients with self-assessment. Patients who do not have an accurate perception of their physical limitations are more likely to exceed those limitations and are at higher risk for falling (Hughes et al, 2004). Assessing patients for accuracy of knowledge and perception is an important skill for nurses and other health care providers (Best, 2001). This study shows that health care providers do not tend to emphasize the benefits of

beginning an exercise program. Educational efforts aimed at increasing health care providers knowledge about the positive aspects of exercise might increase patient motivation to participate and decrease the fall rate.

Content of Fall Prevention Messages

The participants in this study emphasized the importance of maintaining independence, and were more likely to listen to advice that emphasized that aspect of their lives. As seen in this study and others, traditional fall prevention education carries connotations that make patients feel like they need to be given advice, focuses them on limitations and prioritizes safety over personal dignity. One way to demonstrate value for patient dignity and life lessons is to discover what patients are already doing and build on those strengths. Education that emphasizes the positive and focuses on what can be done to maintain and support autonomy is more likely to interest older patients (Hughes et al., 2008). Older adults can often refuse to consider options that are not easily attained or that may require physical or mental effort (Nyman & Ballinger, 2008). The older patient is more likely to succeed in incorporating information into lifestyle changes if goals are attainable and independence is encouraged. Reinforcing the strengths and abilities in a positive aging framework can result in increases in exercise and functional independence in older adults, factors associated with reduction of falls and fall-related injuries (Hughes, et al, 2008; Levy & Myers, 2004).

A well-supported intervention for reducing falls in older adults is to involve them in an exercise plan. Most of the participants in this study were not involved in an exercise regimen and were not aware of the benefits of participation, in keeping with findings by Yardley & Donovan-Hall et al. (2006). Studies show that people are reluctant to

participate in falls prevention programs that have an exercise component if they have not previously regularly exercised (McInnes & Askie, 2004). Several participants interviewed in this study did not exercise, and did not feel comfortable with the idea of beginning an exercise program. In this study participants cited fear of injury or failure as reasons not to participate in exercise, results also found in the literature (Mahoney et al., 2007). The participants in this study, who did report exercise, did so because they had either physical therapy support, or a supportive social and family environment. The results of this study suggest that participants are open to exercise when support comes from a friend or family member, and professional guidance is available.

Implications for content would not be complete without addressing the issue of self-perception. Though many of the participants had been told they were at a high risk for falling previous to the interview, and the topic was discussed during the interview process, participants were resistant to changing their views and did not feel that they were likely to fall. In addition, participants had a lack of understanding of the possibility of fall prevention, seeing falls as unpredictable accidents. Similar studies by Yardley (2006) and Hughes (2008) on the perceptions of community dwelling elders towards fall prevention education confirm these views. Fall prevention advice was viewed as important, but did not apply to the participant. This implies that a successful fall prevention education program will help hospital patients understand that many falls are preventable. Focusing on the falls that can be prevented would be a motivational tool, especially if accompanied by interventions that patients feel comfortable using (Morse, Tylko & Dixon, 1987).

Timing of Fall Prevention Education

Several participants in this study admitted that though they knew they had been told to ask for help, they had trouble recalling the advice due to the large amount of information received upon admission. This finding has implications for education that are confirmed by other research. In a study by Bellamy, participants did not tend to recall the interventions they had been given unless they had been repeated and emphasized (2004). This implies that if health care providers emphasize fall prevention interventions throughout the hospital stay, and not just upon admission, patients will be more likely to recall the information.

Hourly Rounding is a growing trend in hospitals that involves increased patient monitoring focused on times and days of high fall risk. When nurses used scripted questions about pain, positioning, toileting and personal items on an hourly basis, the fall rate was shown to decrease (Meade, Bursell & Ketelsen, 2006). This is supported by the results of this study that show that participants are likely to disregard nursing advice to ask for help when they tire of waiting for the nurse. Several participants in this study reported getting up without help when they needed to use the bathroom or to obtain a personal item or were simply tired of waiting for the nurse. Studies show that incorporating a proactive intervention such as hourly rounding also builds trust with hospital patients, increasing the likelihood that advice will be followed (Leighty, 2006).

Location of Educational Efforts

The results of this study show that fall prevention messages are scarce. It is possible that if older adults hear fall prevention messages in a variety of places, and not just in the hospital, they might be more open to participation. A fall prevention program

that provides elders with consistent information from a variety of sources such as work-place, television, internet, physician's office as well as social settings like church is more likely to be effective.

Studies show the effectiveness of educational efforts in a variety of settings. Hospital education includes preadmission and preoperative education, patient education upon admission, and ongoing staff education. In the community, research has shown the effectiveness of Internet sites containing fall prevention information, health fair screenings, physical therapy sessions and physician visits. Participants in this study reported a wide variety of sources for health information, thus using social marketing to plan and implement a fall prevention health promotion program might improve health care outcomes (Primack et al., 2007).

Effective Teaching Strategies for Fall Prevention Education

Health care provider education should address the method in which older patients are addressed. Many of the participants in this study felt frustration with the way they were spoken to by members of the health care team. Elders are often regarded in the United States as cognitively inferior to younger adults, with exaggerated infirmities. The community or their families do not utilize their expertise, and they are often relegated to the sidelines when leadership is needed or decisions are made (Levine, 2004). Participants in this study reported being treated as if they were not mentally competent. An effective education plan for older adults would take into account their capabilities, respecting life experience and maintaining patient dignity.

This study confirms other research showing that involving older adults in their educational plan is important (Best, 2001). This study demonstrates that many elders are

already active participants in their own care. Educational efforts that do not take this into account may be seen as insulting. As suggested by other research, educational providers can begin by assessing what the person already knows, and continue with information relevant to the situation, assessing for agreement with the plan of care, and asking for involvement in choosing appropriate interventions (Simpson, Darwin & Marsh, 2003). In a mutual participation model, joint decisions are made and participants are active members of the health care team (Bellamy, 2004). Glanville (2000) reports on the changing role of health care provider to that of promoting and maintaining the health of the patient. This shift compels providers to aim beyond simply imparting information towards empowering patients to use their own resources to the fullest. This study confirms research that shows the importance of establishing rapport and trust.

Another important implication for method of delivery found in this study is the suggestion that messages must be specific to the participant. This confirms prior evidence that fall risk assessment must be coupled to tailored fall prevention interventions to be effective (Ryan & Lauver, 2002; RAND, 2003). Interviews revealed that participants were able to recall interventions that were specific to events that had occurred in their lives. Of particular note are the recalled interventions of those who took part in classes specific for hip replacement candidates. The number of specific interventions these participants could list and the amount of time that had passed after the class had been taken suggest that this format is highly effective for these participants, and is confirmed in the literature (Best, 2001). The literature also supports the use of tailored advice as a technique to make the information more personally relevant to the individual (Nyman and

Yardley, 2009). Interviews with many participants revealed that when educational efforts were seen as relevant, they were listened to and acted upon.

Another implication of this study for how to teach fall prevention education is to use a variety of presentation styles. Participants in this study reported a variety of preferred learning styles, and research supports that since learning styles vary, using a combination of educational methods is more effective for ensuring retention of learning (Best, 2001, Glanville, 2000). The hip replacement education experienced by participants in this study consists of a two-hour class that takes place before the operation. The class is taught by nurses and involves video, handouts and verbal instruction, as well as demonstration and patient participation. Fall prevention education involves showing participants how to maneuver after hip replacement surgery and includes pictures of how to go up and down stairs, use a chair and go the bathroom. Information is also given on how to make changes at home to prevent falls such as improving lighting, removing area rugs and installing shower and toilet support bars. A website is also available for participants to view at any time before or after the class. Phone numbers are provided for participants to ask questions at any time before or after surgery (L. Coffman, personal communication, May 26, 2010). Adoption of these educational strategies for any type of hospital admission could be a useful fall prevention tool.

Several participants in this study reported enjoyment of learning by doing, and many others mentioned recalling something they were shown how to do. In the pre-op class previously described, participants are not just given the material in handout form, but have the opportunity to practice interventions with the help of the nurse. This confirms what the literature reports, that even when practiced, recall is at best only about

50% (Glanville, 2000). Based on these results, elder adults are more likely to participate in an intervention that involves practice and repetition.

Assessing learning is an educational tool that this and other studies support. This study confirms what others have shown -- that poor compliance is often the result of an inability to understand or recall instructions. Understanding of fall prevention education could be assessed using the “teach back method.” This method uses questions such as, “once I leave the room, if you need to get up to use the bathroom, what will you do?” followed by a summary statement of the answer to help elucidate attitudes and understanding of fall risks (Schillinger, et al. 2003).

Implications for theory

The Health Belief Model is based on the idea that a person will take a health related action such as fall prevention measures, only if the person feels that a negative health condition such as falling can be prevented. Many participants did not feel that falling could be prevented, and given their resistance to seeing themselves as at risk for falling this may not be the best strategy for attempting to motivate older adults. The motivation for the fall prevention interventions they took part in appeared to come from a desire for independence, instead of a fear of harm. The implication for the use of the HBM is that by finding the underlying motivator such as avoidance of loss of autonomy, it may be possible to design more effective fall prevention programs.

In addition, the HBM states the person must have a positive expectation that by taking a recommended action, he or she will avoid a negative health condition, and to believe that he or she can successfully undertake that recommended health action. In this study, when presented with an evidence-based fall prevention action such as exercise,

most participants did not express a positive expectation that participation would prevent falling. However, many participants did express interest in exercise, and only a few were resistant or felt it would increase their risk. Participants did see exercise as important, just not as a fall prevention tool.

The implications of the application of the HBM to this study are that participants will not benefit from increased fall prevention education that focuses on falling since they do not see themselves as being at risk for falling. Education that focuses on participating in actions that the participant is already involved in, such as exercise, instead of on avoidance of hazards is more likely to be successful. Education should attempt to link exercise to added health benefits such as balance, mobility and strength as well as independence. When researchers consider using the HBM for the design of patient education materials, it is important to consider that the primary motivator may not be avoidance of a negative consequence, but in achieving a desired consequence such as independent living. When using the HBM with an older population, focusing on the life experience of the target audience will help with design of educational materials.

Implications of limitations

Despite limitations such as small sample size, possible negative participant attitudes towards the topic, a lack of self-knowledge about learning styles and interview interruptions, this study provides important data for the design of educational materials for the older inpatient. The purposive sampling used in this study provided a surprisingly heterogeneous group of patients in regard to age and gender. Lack of self-knowledge may have played a role in expression of learning style, however it was possible to get this information by inference and by asking other types of questions. Interruptions in the

interviews also occurred, however a great deal of data emerged that is useful. It is difficult to know the implications of the limitations of the researcher, however the fact that only one person reviewed the data, and the experience of the researcher with the methodology can be ameliorated in some respect by comparing the results to similar studies, and by expert review.

Implications for future research

Qualitative methods can reveal individual's perceptions of health promotion messages, however quantitative methods are necessary to determine the prevalence of these views and how they influence the adoption of specific interventions. Future research could build on this study to develop and evaluate the acceptability and effectiveness of a variety of educational interventions. In addition, there are few specific studies about the effectiveness of public information or mass education campaigns for fall prevention. As mentioned previously, social marketing to improve health literacy has been successful in improving the production of educational materials to a broad audience (Primack et al., 2007). Research in this area is needed to determine if a full health literacy campaign might be effective in helping older adults understand their risks and improving participation in fall prevention interventions such as exercise programs.

Further research is needed about which fall prevention programs are acceptable to older adults. It would be useful to know if an exercise program begun in the hospital setting would be an effective fall prevention intervention. In addition, there is a lack of evidence to suggest that educational setting or a particular type of provider of education is more effective. It would be useful to design a study to determine the effects of

physician and family involvement in older patient participation in fall prevention interventions.

It is important to consider alternative explanations for the findings and to take into account methodological or other limitations affecting the study results. A longitudinal design that involved additional interviews, and member checking of results would have been useful to enhance dependability and credibility. It would also be interesting to see how the lived experience of dealing with fall prevention education changes over time. Ideally, another researcher would go through the data analysis process as described to increase dependability and confirmability (Polit & Beck, 2008). In addition, space triangulation would test for cross-site consistency, and using an alternate qualitative method analysis such as constant comparison would provide an opportunity to evaluate the extent to which a consistent and coherent picture of the phenomenon has emerged.

Conclusion

This study shows that by taking into account the perceptions and interests of older inpatients, fall prevention education could be designed that is more acceptable to this high risk group. Fall prevention education messages received by older inpatients consist mainly of “being careful”; with specific interventions related to personal experiences and not to an organized fall prevention education plan. Research shows that to maximize participation in health promoting activities, barriers to understanding must be identified. This study shows that though elder inpatients are open to learning, educational efforts must address their desire to maintain independence, need for individualized instruction, and respect for their life experience and intelligence. The creation of an educational program focusing on health promotion messages that emphasizes staff education,

involvement of the entire health care team including the patient and family, and inclusion of multiple educational methodologies is an important part of a hospital fall prevention plan that will reach out to older patients. Motivating older adults to participate in programs that reduce fall risks by promoting their independence, such as participation in strength and balance training exercises will require the coordinated efforts of the entire health care provider team.

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APPENDICES FOR PROPOSAL

Appendix A: Informed consent

Informed Consent**Consent to Participate in a Research Study**

Protocol Title: Older Patients' Perceptions of Fall-Prevention Education: A Qualitative Study

Researcher Name and Contact Information: Kristi Sanborn Miller, (828)230 2032; 174 South Grove St. Asheville, NC 28801; Dr. Linda Comer, (828) 348 4455; WCU Nursing Department 1459 Sand Hill Road G33, Candler, NC 28715

What is the study about and why are you doing it?

This research is being conducted to obtain information about risk of falling and ways of reducing the risk of falling. You are being asked to take part because you are 65 years of age or older and because you have been determined to be at risk for falling.

What are you asking me to do if I agree to be in the study?

If you agree to participate in the study, background information will be collected at the beginning of the session. You will be asked what you *think* of what you have heard - whether you agree or disagree, and whether you think you have been told the right things or not. The interview will be audio recorded with your permission. The total time needed will be about one hour.

How will this study help me?

The information obtained from this study may not help you. However, it may help others by making recommendations to improve fall risk and fall prevention education, and ultimately reduce the fall rate.

Are there any risks involved with being in the study?

There are no anticipated physical risks or harms to you as a result of your participation in the study. Discussing past experiences may bring on feelings of sadness or anxiety. In the event you experience these feelings, the study researcher or your nurse will put you in contact with a chaplain or health care professional who can help you with your feelings. Participation in the study will be kept confidential and will not affect care delivery in any way.

What steps have been taken to minimize participant risk?

You may choose not to respond to any questions that you prefer not to discuss. The information that you provide will be kept confidential. You will be assigned a study ID number, which in no way can be linked to your information. This study ID number will be used for all documentation of study results. The researcher and transcriptionist will have access to the audiotapes, transcriptions, and other data collected in this study. No one will be notified about your participation in this study.

Will it cost anything to participate?

No.

What else do I need to know?

Your decision to participate in this study is voluntary. If at any time during this study you wish not to participate, you may do so without any consequence.

Whom can I contact with questions or concerns?

If you have questions, please contact Kristi Sanborn Miller at (828) 230-2032 or Dr. Linda Comer at (828) 348-4455. If you have concerns about the study, please contact the Institutional Review Board at Mission Hospitals at (828) 213-1105.

For a copy of the completed study, contact Kristi Sanborn Miller at (828) 230-2032.

Results will be available after April, 2010.


Participant's Agreement: I have read the above information. The study has been explained to me and any questions have been answered. I voluntarily agree to be in this study.

Name: (printed)	
Signature:	Date:

Person providing informed consent discussion.

Name: (printed)	
Signature:	Date:

Appendix B: Mission IRB Approval, WCU Approval, CITI Protection of Human Subjects Training (Attached)

Institutional Review Board 509 Biltmore Avenue, Asheville, North Carolina 28801 phone (828) 213-1105 fax (828) 213-7056 www.missionhospitals.org		
Date:	May 20, 2009	
To:	Kristi Sanborn, BSN, MS	
From:	Mission Health Institutional Review Board	
Study Title:	[117195-1] Patient's Perceptions of Fall-Prevention Education: A Qualitative Study	
IRB Reference #:	09-05-682, NF	
Submission Type:	New Project	
Action:	Approved	
Approval Date:	May 20, 2009	
Approval Period:	[12 Months]	
Expiration Date:	May 20, 2010	
Review Type:	Expedited Review	

On May 20, 2009 the Mission Health Institutional Review Board has reviewed and APPROVED your proposed New Project. "[117195-1] Patient's Perceptions of Fall-Prevention Education: A Qualitative Study" was reviewed via Expedited Review under applicable federal regulation 45 CFR 46.110, category 7.

This approval is for [12 Months] and the expiration date of the approval for this study is May 20, 2010.

You must submit a Protocol Progress Report at least three weeks before the expiration date of this study. If you choose to terminate the study before its expiration date, you must submit a Protocol Progress Report to inform the Board. In addition, you are required to submit an amendment request before initiating any changes to IRB approved research in accordance with 21 CFR 56.108 (a)(4). IRB approval may be withdrawn if any changes in the research activity are initiated without prior IRB approval.

As with any changes to the research itself, financial relationships or interests that develop with a sponsor later or over time, must be brought to the attention of the Mission Health Institutional Review Board for further consideration.

Federal regulations require that investigators report any unanticipated problems involving risks to human subjects or others. Mission's IRB procedures regarding the reporting of unanticipated problems may be found in Administrative Policy 300.030.

If you have any questions, please contact Cherie Stump at 828-213-1105 or cherie.stump@msj.org. Please include your study title and reference number in all correspondence with this office.

cc: file

CITI Collaborative Institutional Training Initiative

Human Research Curriculum Completion Report Printed on Monday, January 14, 2008

Learner: Kristi Sanborn (username: klsanborn)
Institution: Mission St. Joseph's Health System
Contact Information: 428 Biltmore Ave, Box 38
 Asheville, NC 28801 US
 Department: Mission Hospitals Cancer Program
 Phone: 828 213 4150
 Email: jrnkls@msj.org

Group 1.: Biomedical Research Investigators and Key Personnel

Stage 1. Basic Course Passed on 01/14/08 (Ref # 1512467)

Required Modules	Date Completed
Introduction	01/14/08
History and Ethical Principles	01/14/08
Basic Institutional Review Board (IRB) Regulations and Review Process	01/14/08
Informed Consent	01/14/08
Records-Based Research	01/14/08
Genetic Research in Human Populations	01/14/08
Research With Protected Populations - Vulnerable Subjects: An Overview	01/14/08
Vulnerable Subjects - Research Involving Minors	01/14/08
Vulnerable Subjects - Research Involving Pregnant Women and Fetuses in Utero	01/14/08
Group Harms: Research With Culturally or Medically Vulnerable Groups	01/14/08
FDA-Regulated Research	01/14/08
HIPAA and Human Subjects Research	01/14/08
Mission St. Joseph's Health System	01/14/08

For this Completion Report to be valid, the learner listed above must be affiliated with a CITI participating institution. Falsified information and unauthorized use of the CITI course site is unethical, and may be considered scientific misconduct by your institution.

Paul Braunschweiger Ph.D.
 Professor, University of Miami
 Director Office of Research Education
 CITI Course Coordinator

Return

Request for Review Of Human Subjects Research (IRB)		WCU IRB Registration No: 09-241	Date Received at RA 5/27/09
Investigator Status (Select One) <input checked="" type="checkbox"/> Principal Investigator (PI) <input type="checkbox"/> Co-PI <input type="checkbox"/> Other Investigator <input type="checkbox"/> Faculty Advisor		WCU Status (Select One) <input type="checkbox"/> Staff <input type="checkbox"/> Faculty <input type="checkbox"/> Undergraduate Student <input checked="" type="checkbox"/> Graduate Student	
Last Name Miller	First Name Kristi	Telephone Number 828 230 2032	
Department Nursing	Campus Address 174 South Grove St. Asheville NC 28801	Email Address klsrn1968@gmail.com	
Investigator Status (Select One) <input type="checkbox"/> Principal Investigator (PI) <input type="checkbox"/> Co-PI <input type="checkbox"/> Other Investigator <input checked="" type="checkbox"/> Faculty Advisor		WCU Status (Select One) <input type="checkbox"/> Staff <input checked="" type="checkbox"/> Faculty <input type="checkbox"/> Undergraduate Student <input type="checkbox"/> Graduate Student	
Last Name Comer	First Name Linda	Telephone Number 828 670 8810	
Department Nursing	Campus Address Enka	Email Address lcomer@email.wcu.edu	
Investigator Status (Select One) <input type="checkbox"/> Principal Investigator (PI) <input type="checkbox"/> Co-PI <input type="checkbox"/> Other Investigator <input type="checkbox"/> Faculty Advisor		WCU Status (Select One) <input type="checkbox"/> Staff <input type="checkbox"/> Faculty <input type="checkbox"/> Undergraduate Student <input type="checkbox"/> Graduate Student	
Last Name	First Name	Telephone Number	
Department	Campus Address	Email Address	
Project Title (maximum 400 characters) Older Patient's Perceptions of Fall-Prevention Education: A Qualitative Study			
Project Summary (maximum 400 characters) This thesis project involves use of interview of inpatients at Mission Hospitals in Asheville, NC to obtain qualitative data to explore emerging themes in patient education regarding fall risk and prevention. Outcomes will yield information useful to implementing improved education strategies.			
Check any that apply <input checked="" type="checkbox"/> Thesis Dissertation <input type="checkbox"/> Grant Proposal <input type="checkbox"/> Classroom Project <input type="checkbox"/> Other Research			
Send completed application with attachments to: Institutional Review Board c/o Research Administration Graduate School and Research 109 Cordelia Camp Building		Council Member Conducting Initial Review	
Allow 2 weeks for the review process to be completed.		<input type="checkbox"/> Ted Chlappell (505 Moore) <input checked="" type="checkbox"/> Meagan Karvonen (250 Killian) <input type="checkbox"/> Victoria Clement (225 McKee) <input type="checkbox"/> Jim Goodwin (326 Killian) <input type="checkbox"/> Chris Cooper (358 Stillwell) <input type="checkbox"/> _____	
For Institutional Review Board Use Only			
<input type="checkbox"/> Add IRB contact information <input type="checkbox"/> Add advisor/student contact information <input type="checkbox"/> Add a statement that the participant is at least 18 years of age. (Under age 18 requires parental/guardian permission.) <input type="checkbox"/> Add a statement that participation is voluntary and that participation and the date provided can be withdrawn at any time. <input type="checkbox"/> Provide a signature and date line for participants on the consent form. <input type="checkbox"/> Add a space on the Parental Permission form for the child's name. <input type="checkbox"/> The minor subjects are considered old enough to provide their assent. Develop a simple assent form for review. <input type="checkbox"/> Statement regarding video/audio tapes must include where they will be kept, for how long, when (or if) they will be destroyed, who will have access to them, etc. <input type="checkbox"/> A statement from the school, institution, facility, etc., granting permission to conduct research is needed. <input type="checkbox"/> A cover letter for mail surveys is needed. <input type="checkbox"/> A copy of the survey instrument is needed. <input type="checkbox"/> A copy of the consent form is needed. <input type="checkbox"/> A copy of the assent form is needed. <input type="checkbox"/> See memorandum for additional instructions <input type="checkbox"/> _____		Initial Review Results <input type="checkbox"/> Exempt from review. <input checked="" type="checkbox"/> Expedited Review: <input checked="" type="checkbox"/> Approved as submitted. <input type="checkbox"/> Approved with conditions as noted, which must be met prior to initiation of research. Signed <u>per MR email</u> Date <u>5/27/09</u> <input type="checkbox"/> Requires full board review.	
		Full Board Recommendation <input type="checkbox"/> Approved as submitted. <input type="checkbox"/> Approved with conditions as noted, which must be met prior to initiation of research. <input type="checkbox"/> Not approved. Signed _____ Date _____	
		<input type="checkbox"/> All Conditions Met Signed _____ Date _____ Note: Approval expires one (1) year from the date above. If significant changes are made to this protocol, prior approval from the IRB must be obtained. If you disagree with the final IRB recommendation, you may appeal the decision.	

Appendix C: Questions for Interview

I'm going to ask you what you have heard about the risk of falling and ways of reducing the risk of falling. What I really want to know is what you *think* of what you have heard - whether you agree or disagree, and whether you think you have been told the right things or not.

1. Have you seen anything on T.V. about the risk of falling and ways of reducing the risk of falling?

Can you tell me all about what you saw. How did you feel when you saw it? What do you think about it?

Then ask about other media - radio, newspapers and magazines, books.

2. Has a doctor ever talked to you about the risk of falling and ways of reducing the risk of falling?

Can you tell me all about what the doctor said? How did you feel about what s/he said? What do you think about what s/he said?

Then ask about other health professionals - nurses, physiotherapists, etc.

3. Has anyone in your family ever talked to you about the risk of falling and ways of reducing the risk of falling?

Can you tell me all about what they said. How did you feel about what they said? What do you think about what they said?

Then ask about other people - friends, neighbours etc.

4. What are your own ideas about the risk of falling and ways of reducing the risk of falling?

5. What would YOU want to be told (if anything) about falling and ways of reducing the risk of falling?

Demographics:

Age group: 61-74 years, 75-94 years

Falls in the past year: none, one, two or more

Injury from fall: yes no

Gender: male or female