

OLDER ADULT PERCEPTIONS OF COMFORT IN A HOME HOSPITAL
COMPARED TO TRADITIONAL HOSPITAL CARE.

A doctoral dissertation by:

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ABSTRACT

Title: Older Adult Perceptions of Comfort in a Home Hospital Compared to Traditional Hospital Care

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Comfort has long been recognized as an important nursing outcome. The environment in which health care is delivered can affect patients' perceptions of comfort. Despite increasingly popular alternatives to expensive hospital care, such as home hospital, little is known about patient perceptions of comfort in the home hospital model. This exploratory, descriptive study used a qualitative as well as quantitative approach to study older adult perceptions of comfort in a home hospital (HH) model of care compared to traditional hospitalization (TH.) Purposive sampling included 15 hospitalized patients and 15 home hospital patients. Diagnoses included were 4 chronic heart failure, 4 community acquired pneumonia, 4 chronic obstructive pulmonary disease and 3 cellulitis patients in each group.

Interviews were conducted using semi-structured, open-ended questions and a General Comfort Questionnaire (GCQ) was administered to each participant. Qualitative analysis in the form of qualitative description was used to describe patient perceptions of comfort and identify common themes of comfort detractors and enhancers in the HH and the TH environments. Scores from the GCQ were used to stratify and further analyze the qualitative data.

As previous studies on comfort have identified, perceptions of comfort emerged as a highly individualized and state specific. Conditions that were perceived to enhance comfort for some, detracted from comfort for others. Nevertheless, the major finding was that both the home hospital and traditional hospital groups reported they were comfortable in their respective environments. Being where they thought they needed to be and having their needs met in the respective environments affected self reports of comfort. Two reasons for choosing TH as opposed HH that were independent of the acute medical need emerged in the qualitative data; social fulfillment and caregiver respite. These findings indicate that nursing assessment of social and caregiver needs when determining whether HH is the right environment for some patients may be appropriate. Additional study examining the social and caregiver needs of potential HH patients is needed.

TABLE OF CONTENTS

ACKNOWLEDGEMENT OF FINANCIAL SUPPORT	iii
ACKNOWLEDGEMENTS	iv
ABSTRACT	vi
TABLE OF CONTENTS	viii
LIST OF FIGURES	xiii
LIST OF TABLES	xiv
CHAPTER 1	1
Introduction	1
Hospitals and Hospitalization	2
Home Hospital	7
Barriers to Implementation	8
Importance to Nursing	10
Comfort	11
Summary	13
Specific Aims	14
CHAPTER 2	15
Literature Review	15
Introduction	15
Conceptual Background	16
Comfort Literature	19
Search Strategy	19

Comfort as a Concept	22
Comfort Theory	25
Summary of Comfort Theory	29
Comfort as a Process	30
Comfort as a Product or Outcome of Nursing	33
Comfort as Perceived by the Patient	33
Summary of Patient Perceptions of Comfort	36
Comfort in the Environment	36
Variables Affecting Comfort	38
Comfort in the Health Care Environment	39
Home Hospital Literature	41
Search Strategy	41
Various Forms of Home Hospital	42
Home Hospital in the United States	47
Critique of Home Hospital Literature	49
Review of the Literature on Hospitalization and Comfort	49
Summary	52
Operational Definitions	56
CHAPTER 3	58
Research Design and Methods	58
Design Overview	58
Qualitative Method and Instrument	62

Quantitative Method and Instrument	65
Sample	66
Sample Size	66
Access to Sample and Recruitment	68
Recruitment	69
Inclusion Criteria	69
Procedures	70
Protection of Human Subjects	70
Interviews and Data Collection	72
Privacy, Confidentiality and Interruptions	74
Qualitative Data Analysis	75
Quantitative Data Analysis	77
Threats to Validity	78
Strategies to Promote Trustworthiness	79
CHAPTER 4	81
Results	81
Data	81
Comfort Scores	83
Older Adult Perceptions of Comfort	84
Enhancers	86
Detractors	87
Both Enhancer and Detractor	88

Themes of Comfort	92
Staff	92
Environment	93
Stratifying the Sample	95
Low Scores	96
High Scores	97
Qualitative Results	98
Low Scorers	98
High Scorers	101
Comfort in the Home Hospital Compared to Traditional Hospital	103
CHAPTER 5	106
Discussion and Conclusions	106
Discussion of Comfort Perceptions	106
Major Finding	106
Conclusion	108
Discussion of Sample Stratification	109
Quantitative Data	109
Subscales of Comfort	110
Qualitative Data	111
Conclusion	112
Comfort Literature	112

Home Hospital Literature	115
Person Environment Literature	117
Limitations of Study	118
Nursing Implications	120
Implications for Nursing Research	122
Perceptions of What is Possible	123
Possible Limits of GCQ	124
The Holistic Nursing Approach	124
Choices Between Home and Hospital	124
Conclusions	125
REFERENCES	128
LIST OF APPENDICES	145

LIST OF FIGURES

Figure 1 – Person Environment Fit – Lawton and Nahemow's Competence Press Model	17
Figure 2 – Comfort Enhancer and Detractors	91

LIST OF TABLES

Table 1 – National Hospital Discharges and Average Length of Stay by Age Group	3
Table 2 – Kolcaba’s Taxonomic Structure of Comfort	26
Table 3 – Table of Published Works Using Kolcaba’s Theory of Comfort	40
Table 4 – 28 Questions Covering Context and Type of Comfort	64
Table 5 – Demographic Information	82
Table 6 – Diagnosis and Length of Stay	83
Table 7 – Comfort Scores	83
Table 8 – Stratified Low and High Scorers	95
Table 9 – Mean Low and High Comfort Scores	98

CHAPTER 1

Introduction

The mention of the word “hospital” usually conjures a mental image of a brick and mortar institution where health care is delivered to patients. Historically, the word hospital is derived from the Latin *hospitale* which is derived from the root *hospes* meaning host or guest. Today the contemporary definition of hospital is “an institution in which sick or injured persons are given medical or surgical treatment” (Webster, 2006.)

In the today’s modern hospital there are numerous health care professionals and sophisticated diagnostic equipment to assist in diagnosis and treatment. It is a place where the patient goes to dwell for a time to be treated and healed. Western medicine has promoted the concept of hospitalization for illness and injury. In most developed countries, a major illness or injury sends the person to the hospital for a stay. The length of stay in the hospital is determined by the patient’s underlying health conditions, the effectiveness of surgical and/or medical treatment, nursing care and other therapies, and the capacity of the patient to recover sufficiently to be sent home.

Nursing care plays a key role in promoting recovery. One of the primary objectives or outcomes of nursing care is patient comfort. Comfort is more than simply the absence of discomfort. The word “comfort” comes from the Latin *confortare* which means *to strengthen*. Nurses strive to promote comfort for hospitalized patients through numerous approaches and techniques. Physical

comfort is facilitated through positioning, administration of pain medication, massage and distraction. Psychological comfort is often facilitated through reassurance and education of the patient. One of the barriers to achieving comfort in the hospital is the environment. The noise, odors and the constant intrusions into the patient's space are environmental considerations that are rarely addressed. Additionally, it is well known that the hospital environment poses risks to the patient for iatrogenic complications. The context has the potential to affect patient comfort.

Evolution of Hospitalization. On May 11, 1751 the Pennsylvania state legislature voted on a charter to establish the first hospital in the United States (U.S.) The Pennsylvania Hospital was established primarily to care for the sick poor and insane who wandered the streets of Philadelphia (UPHS, 2005). This purpose was repeated for other early hospitals in the U.S. that were established primarily to care for the sick poor. Those who were not poor avoided hospitals, preferring to receive their health care at home. In the eighteenth century, U.S. hospitals were considered to be a place only for those who had no home in which to rest and heal.

Over the years, the number of health care disciplines increased and sophisticated diagnostic equipment was developed. World War II and the resulting demand for hospital care had a major impact on the growth of the hospital industry (Buhler-Wilkerson, 2001). By 1945 there were 13 hospital beds for every 1000 Americans. Hospitals seemed the ideal environment to provide

health care for the purposes of teaching health care professionals and in order to most effectively utilize sophisticated diagnostic equipment. Today, hospitalization is the gold standard for health care (Leff & Burton, 1998). Unlike the early hospitals, today's hospitals are for everyone, regardless of social status or income. The hospital environment is widely accepted in the U.S. as the best place to deliver acute health care to patients.

Demand for Hospitals. As the population ages, the demand for hospital beds will increase. In the year 2000, the 65 and older population in the United States numbered 35.6 million. By the year 2030 this age group will exceed 71 million (USDHHS, 2002). In proportion to the general population, older adults are hospitalized more frequently and have longer lengths of stay in the hospital than any other age group (see Table 1) (DeFrances, Hall, & Podgornik, 2003). When acute illness or exacerbations of chronic illness occur, older patients are often admitted to the hospital for diagnosis and treatment. In 2003 more than 13 million older adults were hospitalized (Kozak, 2005).

Table 1 – Number of Acute Hospital Discharges and Average Length of Stay

Age Groups	Number of Discharges in Thousands	Average Length of Stay in Days
All Age Groups	34,738	4.8
Under 15 Years	2,571	4.5
15-44 Years	10,831	3.8
45-64 Years	8,120	4.9
65 and Older	13,216	5.7

Source: U.S. Department of Health and Human Services: National Hospital Discharge Survey 2003

Benefits and Risks of Hospitalization. While the demand for hospital beds is increasing, it is known that hospitalization carries risks as well as benefits to patients. The benefit of being housed where highly skilled health care professionals with resuscitative equipment are seconds away is appealing to some patients. Additionally, sophisticated diagnostic equipment such as X-ray, ultrasound, magnetic resonance imaging and other highly technical diagnostic tools are conveniently located in the hospital for easy access when needed. For nursing and medicine, consultation with colleagues is more readily available and convenient in the hospital setting than in any other venue, particularly in home health care where the professional nurse is typically the only health care professional attending the patient during a home care visit. The hospital schedule operates within a system that is designed for busy health care professionals. For example, physicians do not make appointments with their hospitalized patients, they simply make rounds and see patients according to the physician's schedule. The same is true for nurses and other health care professionals in the hospital setting. Hospital schedules and routines are designed for the health care professionals' convenience and efficiency, not patient preferences. Additionally, decisions on staffing and other resource issues are often influenced by cost and efficiency considerations rather than patient outcome measures.

Risks associated with hospitalization are well documented in the literature. The Institute of Medicine estimates that 44,000 to 98,000 patients died in one year because of medical error (Dunn, 2001). It is also estimated that 1.3 million

non-fatal medical injuries resulted in disability or lengthened hospital stay (Bates & Gawande, 2000). For older adults, risks during hospitalization are increased. A Harvard Medical Practice Study reported that patients age 65 and older suffered diagnostic mishaps at twice the rate of other hospitalized age groups, four times the rate of therapeutic mishaps, two and one-half times as many drug complications and nine times as many falls as those under the age of 65 (AARP, 2000; Rothschild, 2000). The presence of pre-disposing conditions in the 65 and older population, for example, cognitive impairment, acute illness, and visual and auditory impairment, makes older adults particularly vulnerable to confusion and accidents in unfamiliar environments such as the hospital (Inouye et al., 1999).

In addition to medical error and accidents, hospitalization can be a major cause of functional decline in older patients due to confinement to a hospital bed (AARP, 2000; Creditor, 1993; Rothschild, 2000). Further, it is reported that delirium complicates hospital stays for over 2.3 million older people (Inouye et al., 1999). The vulnerability unique to the older population, such as de-conditioning and confusion or delirium, combined with iatrogenic complications and medical errors all conspire to make hospitals an especially dangerous place for older adults.

The environment in which health care is delivered has been recognized as an important factor in comfort and feeling of well-being, especially in older adults (Kolcaba, 1992a). While investigation into the environment in which health care is delivered to older adults is underway, the specialty of maternal and newborn

health was one of the first to recognize that the environment of the hospital played a role in the health of mothers and their newborns (Martell, 2003). According to Martell (2003), the early work of Dr. Semmelweis on puerperal infection in newborns laid the groundwork for strict enforcement of asepsis in the hospital. This strict enforcement resulted in separation of the newborn from the family until discharge from the hospital. Mothers were allowed limited access to their newborn during the hospital stay. Over time, families began to reject the artificial environment of the hospital in favor of more home-like environments that allowed for more social contact and bonding with the newborn and family members and less rigidity with regard to separation of the family from the mother and newborn. In the late 1970's and early 1980's health providers responded by creating family centered care and more home-like settings for childbirth and less rigid rules for sterility and separation of the newborn from the mother and other family members.

The specialty of gerontology recognizes that the hospital environment can contribute to dysfunction such as deconditioning in older adults who are hospitalized. The observed dysfunction was often so severe that the older adult was unable to return home after hospitalization and required institutionalized long term care (Panno, Kolcaba, & Holder, 2000). These observations have resulted in the development of a more environmentally friendly acute hospital setting for geriatric patients called ACE (acute care for elders.) The goal of the ACE model was to adapt the environment to meet the needs of older adults in a more home-

like setting, and not to expect these patients to adapt to an alien environment in order to receive acute health care. While there are limitations on the extent to which the institutional acute care environment can be altered, the ACE model of acute health care delivery has demonstrated better functional outcomes in older adults when compared with routine hospital care (Counsell et al., 2000).

In addition to the risk of injury and functional decline for older adults, hospital care is expensive and financing hospital health care has become a major concern for Medicare, the primary payer of hospital care for older adults. As the population in the U.S. ages, the demand for medical services, particularly hospital care, will increase. Currently, those who are age 65 and older are hospitalized more frequently and have longer lengths of stay in the hospital than any other age group (Kozak, 2005).

Considering the expense of hospital care and the risk of hospital care, particularly for the older adult population, it is timely to examine alternatives to hospitalization for some of the more common acute illnesses in older adults. If there is a viable alternative to hospitalization for older adults, nurses, especially gerontological nurses, would benefit from evaluation of such options in order to make informed decisions as they advocate for optimal care for acutely ill older adults..

Home Hospital. In countries where health care is a nationally funded program and afforded to all citizens, alternatives to hospitalization and early discharge programs have been widely tested and are in use as part of the health

care continuum. In the United Kingdom, Australia and some other European countries, “home hospital” (HH) is used to facilitate early discharge from the hospital and in some cases substitutes entirely for a hospital stay. In the United Kingdom the HH model is called Hospital at Home (HAH). In Australia it is commonly referred to as Hospital in the Home (HITH.) In Switzerland it is simply “home hospital.”

Regardless of the acronym used, these models of health care delivery are designed to decrease the length of stay in the hospital or substitute entirely for a hospitalization. The United Kingdom and Australia have used the HH model of acute care delivery for more than 10 years and have published many articles on the cost effectiveness and patient outcomes. By all accounts, the HH model appears to be a safe and effective alternative to hospitalization for patients with certain diagnoses. The United States has lagged behind in implementation of the HH model of care. Leff and Burton et al (1999) attribute this lag to our health care economic system. Medicare, the single largest payer for health care for 65 and older population, uses a prospective payment system for home health care that does not reimburse adequately for the intensity of home health services that are required to substitute for hospitalization.

Barriers to implementation of the HH model in the U.S. The U.S. has the most expensive health care system in the world (Maine, 2001). According to a recent newsletter published by the American Hospital Association (AHA, 2004), expenditures for health care and health related services are a major contributor

to the U.S. economy, accounting for nearly 14.3 percent of the gross domestic product (GDP) and \$1.5 trillion dollars. Of the \$1.5 trillion dollars expended, hospital care accounts for \$486.5 billion. Hospitals are a major source of employment in the U.S. supporting nearly one out of every nine jobs or approximately five million people nationwide. At the closing of the AHA newsletter, there is a quote from Leo Greenwalt, President of the Washington State Hospital Association. He says, *“Any significant change in hospital expenditures in any part of the state will create significant economic ripples that will be felt Statewide...Because many hospital payments come from state and federal governments, we are particularly affected by their budget changes.”*

Under our current system of health care in the U.S., the demand for hospital beds as the only alternative for acute health care will continue to increase as the mean age of the population increases. While the increased demand for hospital beds is likely to be good news for the corporate hospital system in the U.S., Medicare, the single largest payer of health care for the 65 and older population, is struggling under the weight of increasing demand and cost. It is timely and important to the financial sustainability of the Medicare system to explore alternatives to hospitalization for the older adult population.

As previously mentioned, the HH model of acute health care has been used extensively in countries where the health care system is nationalized such as the United Kingdom and Australia. Regardless of whether the model is one of early discharge or one that substitutes entirely for in-hospital care, the results

reported in the literature have been similar. The studies from these countries have reported the model to be safe and effective with patient outcomes that are comparable to in-hospital care (Aimonino & Molaschi, 2001; Aimonino, 2001; Board, Brennan, & Caplan, 2000; Campbell, Karnon, & Dowie, 2001; Caplan et al., 1999a; Coast et al., 1998; Corrado, 2001; Corwin, Toop, McGeoch, & Than, 2004; Corwin, 2004; Cotton et al., 2000; Davies, Wilkinson, Bonner, Calverley, & Angus, 2000; Donald, Baldwin, & Bannerjee, 1995; Donald, 1995; Hernandez et al., 2003; Howden & Grayson, 2002; Jester & Hicks, 2003; Jones, Wilson, & Parker, 1999; Jones, 1999; Macintyre, 2000; Montalto & Dunt, 1997; Nicholson et al., 2001; Ram, Wedzicha, Wright, & Greenstone, 2003; Richards et al., 1998; Shepperd, Harwood, Jenkinson et al., 1998; Stessman et al., 1996; Tibaldi et al., 2004; Ting et al., 1998; Wilson et al., 1999). All of the HH models of care that have been reported have included nursing care as an important part of the delivery of the HH model. However, there is little information in the literature about the effectiveness of such nursing care and nurse-sensitive outcomes in the HH model. Thus far, the exploration of the HH model of care has been driven by the medical model of care with attention to medical outcomes as opposed to outcomes important to nursing such as patient comfort.

Importance to nursing. If HH is an effective alternative to hospitalization with comparable medical outcomes for the older adult population, nurses in the US would benefit from knowing and understanding more about how this model of acute health care delivery influences nursing outcomes. In their consumer

advocacy position statement, *Referrals to the Most Appropriate Provider*, the American Nurses Association (ANA, 2006) states the following: “*The trend towards consumer self care and independence is rapidly growing. Recent studies have revealed that, due to technological advances, complex and costly health care services can be safely administered at home.*” The ANA is interested in this trend because nurses are expected to advocate for patients and if there are alternatives to expensive hospital care that are appropriate for some patients, nurses would be expected to advocate for these alternatives.

Comfort. One of the concerns of nurses caring for acutely ill patients is patient comfort. Historically, since the time of Florence Nightingale, comfort has been considered a primary outcome for nursing care (Kolcaba & Kolcaba, 1991.; Morse, 1992). Comfort is a basic human need that must be met before the patient can turn his/her attention to getting well (Malinowski & Stamler, 2002). Patient comfort goes beyond simply making sure the patient is free from pain. Comfort is a two dimensional construct consisting of type of comfort, and the context in which comfort occurs.(Kolcaba, 1992a). The environment is one context in which comfort occurs and, therefore, is a consideration in patient’s self-report of comfort.

Comfort is an important issue for gerontological nursing (Kolcaba, 1992a) “*it is through comfort nurses provide strength, hope, solace, support, encouragement and assistance.*” Comfort has been considered a nursing function as well as a nursing outcome (Malinowski & Stamler, 2002). Although

the concept of comfort is abstract and not well-defined, the importance of patient comfort is not disputed (Bottorff & Gogag, 1995.). Comfort has been defined as “an experience in which the basic human needs for ease, relief and transcendence have been met” (Kolcaba & Kolcaba, 1991.) There is evidence that the environment in which the patient dwells can be a facilitator or detractor of comfort (Counsell et al., 2000.; Kolcaba, 1992a; Panno et al., 2000; Tutton & Seers, 2004.). If shifting the environment in which acute health care is delivered from the hospital to home can enhance patient comfort, this would be an important finding.

There is little information available in the literature with regard to comfort in the HH model of care. Further, since HH has not been used extensively in the U.S., even less is known about how patients perceive the HH and how it relates to their levels of comfort. In a comprehensive review of the existing literature surrounding the HH model of acute health care, there were no studies that analyzed patient reports of comfort in the HH environment. There were three articles that reported anecdotal information on patient comfort such as *“increased comfort in being cared for at home ”* (Santos-Eggimann, Chavaz, Larequi, Lamy, & Yersin, 2001), *“HH allows for comfort and quality of care”* (Dubois & Santos-Eggimann, 2001) and other general, anecdotal comments about patient comfort (Duke & Street, 2003). Numerous other articles on the HH model of care reported increased patient satisfaction with HH, but with little quantitative analysis. Most of the studies done on the HH model of care have extensively analyzed patient

outcomes in the form of time to recover from the illness or return to baseline (length of stay), safety (adverse events, re-hospitalization and mortality) and economic outcomes (direct costs, indirect costs and length of stay as a proxy for cost.) One study that was done with hospitalized patients in the U.S. asked patients about their level of comfort with a hypothetical HH (Burton et al., 1998b). The majority, 78.5%, reported that they would be more comfortable in a HH model of care.

Summary

The HH model of care may be a viable alternative to traditional hospital care for some patients. The HH model of care is being used in other countries where national health care systems are in place, however, the HH model has not been used extensively in the U.S.. There are many reasons why the HH model of care has not gained popularity in this country. One potential reason is the reimbursement structures in place for health care, particularly home health care. Another reason may be the influence of the corporate health care system on policy makers.

Because comfort is an important patient outcome, nurses are interested in comfort from the patient's perspective. There is evidence in the literature that the environment in which health care is delivered plays an important role in patients' perception of comfort. This study examines patient comfort in the hospital and in the HH environment. Findings from this study will enhance nurses' understanding of HH model of care and its effect on comfort..

Specific Aims

This study addresses two research questions: 1) What are older patients' perceptions of comfort in the HH and Hospital and, 2) How do older patients' self-report of comfort in HH compare to comfort in the Hospital? The aims of this mixed method study were to contribute to the understanding of the HH model of care as it relates to the primary nursing outcome of patient comfort.

Aim 1: Explore and describe patient perceptions of comfort in the home environment and the hospital environment

Aim 2: Examine specific issues of comfort using instrument scores to stratify and further analyze high and low self-report of comfort.

Aim 3: Describe and compare what constitutes comfort for patients cared for at home vs. in the hospital.

CHAPTER 2

Literature Review

Introduction

Since the beginnings of modern nursing, comfort has been an important concept in nursing care. Comfort as an outcome of nursing care and interventions has been studied in many populations from hospitalized patients to outpatients with varying diagnoses and in varying age groups. Facilitators and detractors of comfort as perceived by the patient have also been studied in the context of health care delivery.

There is evidence in the literature to suggest that the environment in which health care is delivered has an effect on patients' self-report of comfort. This study examines comfort as an outcome in an older adult population in the context of acute health care treatment in two environmental situations, the home and the hospital.

Two major constructs were of importance to this study, comfort and environment in which health care is delivered. Therefore, a comprehensive literature review of comfort as well as comfort in the traditional hospital (TH) and home hospital (HH) was needed to inform this research. This study began with a review of the literature on comfort to gain a better understanding of how comfort was defined from a nursing and patient perspective, how comfort was measured, and issues that affected comfort. Next, a review the literature surrounding the HH model of care was conducted to gain a better understanding of how this method

of health care delivery is operationalized for various populations and diagnoses and to summarize results of outcome indicators previously studied. Finally, a review of comfort in the hospital was done.

Conceptual Background

This study examined the patients' perceptions of comfort in two environments (either hospital or home) during an episode of acute illness. For this reason, the model of person-environment fit was selected to inform this study.

The concept of person-environment fit was introduced by Lawton as an interaction between environmental press and individual competence where low press and low competence as well as high press and high competence interact positively allowing the person to remain in a zone of maximum performance and comfort (Lawton, 1983). A moderate mismatch between competence and press results in the person becoming marginally adaptable, while a severe mismatch between competence and press may result in maladaptive behavior.

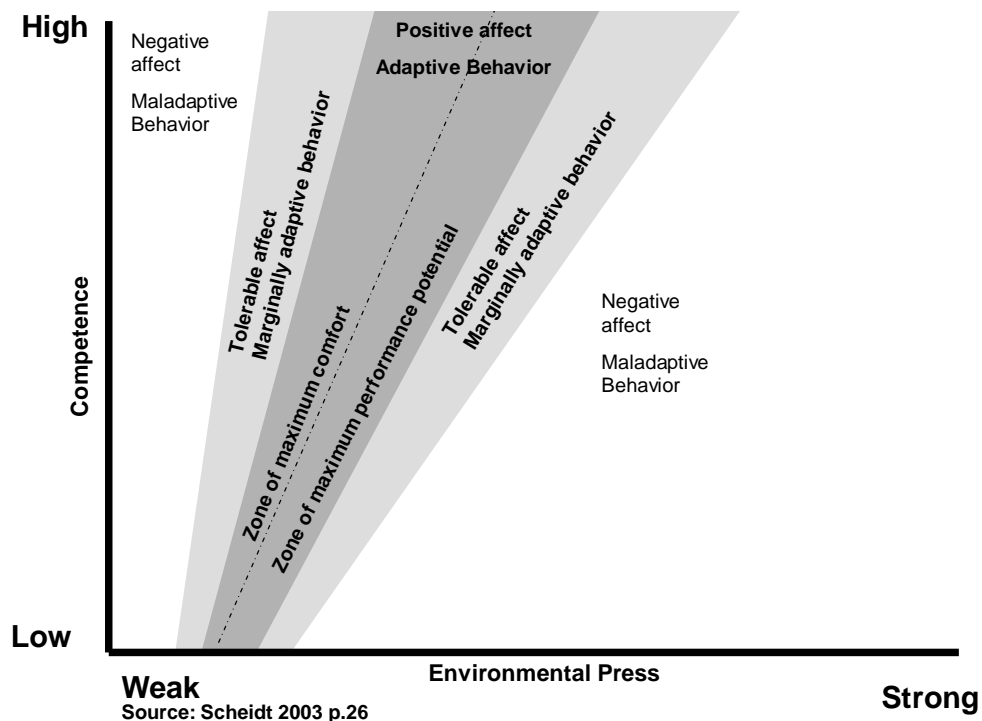
Environmental press is defined as external demands that are placed on the individual. External demands may take the form of physical environmental demands such as steep stairs or low toilet seats, social demands such as isolation, and emotional demands such as a perceived lack of caring or compassionate health care. Competence is defined as the individual's ability to meet the demands of environmental presses either through their own resources

or with assistive strategies, treatment, medications or equipment. The

Competence-Press model is illustrated in figure 1

Person-environment fit has been used extensively in research, particularly with older adults (Coulton, 1979; Lawton, 1983; Lawton, Weisman, Sloane, & Calkins, 1997; Moos & Lemke, 1980; Rubenstein, Moss, & Kleban, 2000; Scheidt & Windley, 2003). Much of the early work of Lawton and application of person-environment fit was with older adults living in nursing homes. The concept of person-environment fit was later

Figure 1: **Lawton and Nahemow's Competence Press Model**



extended to include communities and community dwelling elders. Many researchers have used the concept of person-environment fit in their studies with older adults from studies of older adult preferences in architectural features in congregate living facilities (Brennan, Moos, & Lemke, 1988), to assessing social environments in extended care facilities (Lemke & Moos, 1987, 1989) as well as older adult needs and preferences in community dwelling situations (Gill, Robison, Williams, & Tinetti, 1999; Gitlin, Mann, Tomit, & Marcus, 2001).

The environment is an overlay to patient perceptions of comfort and perceptions of other variables that affect comfort. The fit between the patient's perceived needs and the degree to which these needs are perceived by the patient to be met can be conceptualized as the patient's "comfort zone". Lawton has conceptualized the zones of comfort and adaptation as person-environment fit (Lawton, 1983) which is represented by the competence-press model.

Although the term "comfort" appears in the competence-press model, comfort is not clearly defined, but left to the reader to deduce that comfort occurs when there is congruence between press and competence. In the model, an increase in press required an increase in competence for the patient to remain in the zone of maximum performance and comfort. The concept of person-environment fit, as it relates to older adult patients during treatment for acute illness in the hospital and at home, informed the exploration of comfort in this study.

Comfort

Search Strategy. A search strategy was developed using OVID technologies database searching Medline from 1966 to 2007 as well as the Cumulative Index for Nursing and Allied Health (CINAHL.) The keyword **comfort** was entered and initially produced over 1000 results. This indicates that comfort is an important and often used word in health care research. Hand searches of key articles were conducted to narrow the results to articles and studies specifically focusing on comfort as outcomes of nursing interventions, explorations of the concept of comfort, historical accounts of comfort and comfort theory. This resulted in 42 articles reporting various methodologies for the study of comfort and theoretical development.

In a historical review of comfort in nursing care (McIlveen & Morse, 1995), it is discussed how the components of comfort have changed since the 1900's in nursing. They describe how early nursing focused almost exclusively on physical comfort and primarily on physical pain and relief of pain. Nursing recognized that emotional comfort was connected to overall comfort and that the environment in which health care was delivered could affect emotional comfort. In early nursing, good nursing care included keeping the environment, such as the patient's room, quiet, clean and orderly. In the 1960's through the 1980's nursing knowledge of comfort strategies increased to include more direct emotional comforting strategies such as listening and responding to patient concerns about their condition and recovery. However, during this time, the emphasis on comfort

shifted to become a minor nursing goal. Physical comfort and pain relief were viewed as strategies to achieve other nursing goals such as relief of anxiety, ambulation and deep breathing and coughing. During this time, prevention of complications of hospitalization such as pneumonia and pressure ulcers was a goal of nursing care, not primarily for comfort although comfort was recognized as a secondary benefit of preventing complications. McIlveen and Morse propose that in early nursing, comfort was a primary goal that, over the years gave way to sophisticated medical strategies and technology and became a minor or simple part of care. Comfort as a main goal of nursing care was only for patients where medical technology had failed or was rendered useless as in non-curative care or terminal cases. They conclude that, as our population ages, comfort rather than cure may elevate comfort as a fundamental part of nursing care.

Comfort has historical and contemporary significance for nursing (McIlveen & Morse, 1995) and, since the time of Florence Nightingale, has been cited as a desirable outcome or goal of nursing care (Kolcaba & Kolcaba, 1991.). But, what is comfort? In the English language, comfort is a common word and is used in everyday language.

The word “comfort” can be used as a verb, a noun or an adjective and can specify a process or an outcome (Kolcaba, 1992.). The root of the word **comfort** is from the Latin, **confortare**, which means to strengthen greatly. In old English comfort described acts of strengthening such as “comforting a bridge” meaning to reinforce or strengthen it (Cameron, 1993.). Modern definitions of comfort are

varied but similar. Webster's online dictionary (Webster, 2006.) lists the word as a verb, *to give strength and hope or to ease grief or trouble*, and as a noun, *strengthening aid, consolation in time of trouble or worry, a feeling of relief or encouragement, contented well-being, a satisfying or enjoyable experience and one that gives or brings comfort as in "all the comforts of home."* The Oxford English dictionary (Oxford, 2006) also lists comfort as a verb, *to cause to feel less unhappy; console*, and as a noun, *a state of physical ease and freedom from pain or constraint, comfort, things that contribute to comfort and, consolation for grief or anxiety.*

The word also takes the form of an adjective. A person, thing or an act can be **comforting**. A **comforter** can be a person who comforts or a covering designed to provide warmth. A person can be **comforted** by another. For example, the child was **comforted** by his mother as she rocked him and spoke softly to him. A person in a state of comfort may be described as **comfortable**. There are other terms derived from the root word of comfort that describe the absence of comfort. Someone may experience **discomfort**, in which case he or she might be described as being **uncomfortable**. Additions to the primary word of comfort can more fully explain other facilitators or types of comfort such as comfort food, comfort measures, comfort level, creature comfort, comfort station and comfort zone. For all of the attempts to define the word, it is nearly certain that each individual, upon reading or hearing any of the words of comfort that

have been previously described, has a unique definition of what those words mean.

Comfort as a concept. Comfort as a concept is difficult to define. This is true partly because comfort is what the person experiencing it says it is. It is state-specific and highly individualized. Certain conditions or situations that may be deemed uncomfortable by some, may constitute the very essence of comfort for others. For example, in health care, being hospitalized and surrounded by sophisticated diagnostic and monitoring equipment may be frightening and uncomfortable for some patients while others may find that having these same devices nearby and surrounded by professionals who know how to use them is quite comforting. Furthermore, comfort is often taken for granted, existing in a state that is beyond immediate awareness. Indeed, comfort may be best recognized when a patient first leaves the state of discomfort (Morse, Bottorff, & Hutchinson, 1994). Comfort has also been described simply as the absence of discomfort or as an end result when various components of discomfort, such as pain, nausea and fatigue, have been resolved (Malinowski & Stamler, 2002). Although comfort has been explored from many aspects in health care, a clear, all encompassing definition of comfort remains elusive (Tutton & Seers, 2003). Nevertheless, the literature offers the researcher some useful avenues of inquiry to further understand this complex concept.

Concept analyses have been conducted in order to define the concept as a first step toward understanding comfort. Interestingly, although comfort has

been an important aspect of nursing and woven into many nursing theories, the first concept analysis on general comfort was conducted by Kolcaba in 1991 (Kolcaba & Kolcaba, 1991.). Next, Malinowski and Stamler (Malinowski & Stamler, 2002), conducted an exploration of the concept of comfort in nursing. And, finally Tutton (Tutton & Seers, 2003) has also published an exploration of the concept of comfort.

In Kolcaba's concept analysis of comfort, she proposes that a patient with unmet comfort needs has a deficit and that when the needs are satisfied, the deficit is removed. The term comfort is used to signify both mental and physical phenomena and Kolcaba uses an account of patient needs assessment to divide comfort into three classes, 1) the need to be in a comfortable state, 2) the need for relief from discomfort and 3) the need for education, motivation or inspiration. From these needs, she proposes the three technical senses of comfort, ease, relief and renewal. These three senses of comfort provide the framework for designing comfort measurement tools. Kolcaba concludes that comfort is an important concept in nursing and, although it is informally integrated into nursing practice, there is still much that is unknown about comfort. She suggests a continuing loop for research into comfort where research informs, improves and directs nursing to modify practice which then becomes the object of further research to improve practice.

Malinowski explores the concept of comfort in nursing from the aspect of integration of the concept into nursing practice. She proposes that comfort is a

basic human need that must be met before the patient can turn his or her attention to getting well. And, as such, comfort should be considered an important aspect of nursing care where nurses integrate comfort into everyday practice in a reflexive manner that does not require conscious thought. The nurse provides comfort without thinking about it and by doing so patients are given the opportunity to learn more about themselves and how to enhance their own comfort. Once comfort is achieved, the patient can turn his or her attention to getting well.

Tutton explores the concept of comfort by first asking whether the conceptual boundaries of comfort have been delineated. She points out that comfort is used in relation to a wide range of other concepts such as feeling comfortable with a level of trust or comfortable in a certain environment. This relationship to other constructs is problematic and makes it difficult to delineate how comfort is like or unlike other concepts such as the lack of clarity surrounding the relationship between comfort and caring. Tutton also discusses nursing as therapy, concluding that comfort as a therapeutic aspect of nursing is not clearly delineated. She suggests that comfort is clearly relevant to nursing, however, there remains limited knowledge of how patients and staff view comfort and how comfort is enacted in practice.

Critique of the concept analyses. Kolcaba's concept analysis follows the generally accepted standards for true concept analyses (Walker & Avant, 1995) by first defining various meanings of comfort in ordinary language then giving a

historical account of comfort in nursing before moving on to classify patient needs and develop the three technical senses of comfort. Although Malinowski and Tutton explored the concept of comfort, neither of the works met the rigorous definition of a concept analysis (Walker & Avant, 1995). Nevertheless, as was found by Kolcaba, Malinowski and Tutton identified similar problems with defining the concept of comfort. That is, comfort has been viewed from many angles; as a process (something that nurses do), an outcome of nursing care and a function of nursing care. Comfort is also embedded as an important component of nursing theories such as Watson's theory of human care (Neil, 2002), Leininger's theory of culture care (Welch, 2002) and Patterson and Zderad's theory of humanistic nursing (Patterson & Zderad, 1988) without being well defined. Descriptions of comfort are evident in the literature, but vary according to the authors' view of nursing.

Comfort Theory. Kolcaba (1991) was the first to publish a concept analysis of comfort that meets the rigorous definition of a concept analysis (Walker & Avant, 1995). In the concept analysis, she identified three technical senses of the term that reflect different aspects of the therapeutic context in which comfort is found, relief, ease and transcendence. The concept analysis was followed by her publication of the taxonomic structure for the concept of comfort (Kolcaba, 1991a.) where she identified four contexts in which the three technical senses of comfort exist, physical, social, psycho spiritual and environmental. This resulted in a 3-by-4 grid that encompasses the total domain of patient comfort (Table 2).

The first dimension consists of four contexts where comfort occurs; physical (pertaining to bodily sensations), psycho spiritual (pertaining to the internal awareness of self, including esteem, one's relationship to a higher order or being and meaning in life), environmental (pertaining to external surroundings and influences) and social (pertaining to interpersonal, family and societal relationships). In the second dimension there are three types of comfort that can be experienced in each context; relief (the state of the patient when a specific need has been met), ease (the state of calm or contentment) and transcendence (the state in which one rises above the problem or pain.). Comfort in context can be achieved through any or all of the three types of comfort that exist; relief, ease or transcendence. The environment is one context in which comfort occurs and, therefore, is a consideration in patient's self-report of comfort.

Table 2: Taxonomic structure of comfort from Kolcaba 1991

Type of Comfort				
Context in Which Comfort Occurs		Relief	Ease	Transcendence
	Physical			
	Psycho spiritual			
	Environmental			
	Social			

This work was further refined in 1992 (Kolcaba, 1992.) to arrive at a measure for the nursing outcome of comfort, the general comfort questionnaire (GCQ). In 1992 Kolcaba also expanded on the concept of the environment as a context in which comfort occurs, particularly for older adults (Kolcaba, 1992a). In this work, Kolcaba proposes that the environment in which a patient dwells can

be a facilitator or detractor of comfort. In 1994, Kolcaba proposed a mid-range theory of holistic comfort for nursing (Kolcaba, 1994) and also presented a definition of holistic comfort for nursing. The definition of holistic comfort was first identified in the 1994 and was subsequently further refined in later works, the current definition for holistic comfort is “the immediate state of being strengthened through having the human needs for relief, ease and transcendence addressed in four contexts of experience, physical, psycho-spiritual, socio-cultural and environment” (Kolcaba 2003, p. 251). Three basic assumptions of the theory of comfort are that, 1) humans experience a holistic response to complex stimuli, 2) comfort is a desirable holistic outcome that is relevant to nursing and, 3) human beings will strive to meet their basic comfort needs. This conceptual framework for comfort (Kolcaba, 1994) is an interactional model where needs arise from a stimulus and cause negative tension. The stimulus is made up of alpha press that is the sum of positive, negative and interacting forces. Beta press is the person's perception of the sum of the alpha press on the situation or need. The negative tension is an imbalance that occurs when obstructing forces outweigh facilitating forces. The nurse identifies and targets interventions toward a specific need in order to move the tension in a positive direction. The patient's perception of comfort is then assessed objectively and subjectively. Increased comfort means that the negative tensions have been reduced and positive tensions are engaged which lead to a unitary trend of constructive behaviors. These constructive behaviors are identified by

nursing as health seeking behaviors that stem from the health theme and health-seeking behaviors are theoretically related to comfort in that comfort affects the health-seeking behaviors and health-seeking behaviors affect comfort. Nursing interventions also affect comfort and thus, health-seeking behaviors.

Kolcaba's mid-range theory of comfort has been used as a framework in studies where comfort was measured as the main outcome variable in populations such as women undergoing radiation therapy and end of life care. A summary of these studies is given in table 2. In a yet unpublished work by Kolcaba (Kolcaba, Schirm, & Steiner, 2006), hand massage as an intervention to enhance comfort for nursing home patients is studied. In this study, Kolcaba provides information for use of the GCQ in a shortened format with an older population of frail adults. The 28-item GCQ is a Likert-type self-administered format, with six responses ranging from strongly agree to strongly disagree. Negatively worded items are reverse scored and a total score is obtained by summing items, with higher scores indicating greater comfort levels. The reliability of this instrument, Cronbach's alpha, is reported between .76 and .88 (Kolcaba, 2003.) Validity studies demonstrate good concurrent validity with a visual analog scale for comfort (Kolcaba & Steiner, 2000) (Novak, Kolcaba, Steiner, & Dowd, 2001). Expert review of the GCQ confirmed that the questions covered the content domain of comfort. Factor analysis (Kolcaba, 2003.) showed that the GCQ loaded on the three types of comfort; relief, ease and transcendence.

Hogan-Miller (1995) measured the difference in patient self-report of comfort for two interventions, sand-bagging versus sheet tucking to provide continuous pressure in post coronary angiogram patients. Vullo-Navich (1998) measured self-report of comfort in clinical dehydration in hospice patients. The effects of guided imagery on comfort in patients undergoing radiation therapy for breast cancer was studied by Kolcaba & Fox (1999.) Novak (2001) measured comfort in caregivers during late end of life care. The effect of a warmed blanket on comfort for elderly patients was studied by (Robinson & Benton, 2002) An evaluation of the efficacy of hand massage for enhancing comfort of hospice patients has also been done using the GCQ (Kolcaba, Dowd, Steiner, & Mitzel, 2004)

Interestingly, only one study reported variables that would be assumed to be covariates to the dependent variable of comfort. In this randomized controlled trial, (Kolcaba et al., 2004) hand massage was the independent variable, comfort was the main outcome variable and scores on the symptom distress scale were considered a secondary dependent variable. The findings are summarized in Table 3.

Summary of Comfort Theory. The GCQ is based upon the theory of holistic comfort as proposed by Kolcaba in 1994. The GCQ is constructed to include all variables that might affect comfort and to measure those variables as they relate to overall, holistic comfort as reported by the individual. Symptoms such as pain, nausea, vomiting and constipation are but a few physical variables

that may or may not influence the patient's holistic comfort. Many patients who have pain, for example, are able to transcend the pain and arrive at a level of holistic comfort despite the physical discomfort. Kolcaba has proposed that holistic comfort is more than the sum of the individual parts of comfort or discomfort (Kolcaba & Steiner, 2000).

Comfort as a process. Several nursing researchers have written about comfort as a process. An early study of comfort (Morse, 1983) reveals three main acts that mothers and nurses perform in the process of comforting, touching, talking and listening. In some cases, touching alone is used to comfort while in other cases, talking alone was used, yet other informants described a comforting act that included simply listening. There were varying degrees of combined techniques of touching and talking and talking and touching. Touching ranged from deep massage to hugging, to briefly touching a hand or shoulder. Talking varied from the simple talk one uses with a child to complex adult conversation. All three of the comforting techniques and the degree and combinations of use were influenced by the gender of the person providing the comfort and by their culture. Each of the techniques of comfort was utilized by the person providing the comfort based upon their assessment of need of the person being comforted.

Morse writes about comfort in the context of comforting actions performed by emergency room nurses (Morse, 1992). Again, comforting was operationalized through touching, talking and listening. The talking component

often took the form of coaching patients through painful or uncomfortable procedures. Comforting actions occur even when the high stress and high tech environment of the emergency room may lead some to think that nurses don't have time to perform comforting actions. Morse proposes that comfort is a useful and comprehensive framework for describing nursing practice and that comfort appears to be a means to an end, something that is practiced constantly, rather than an end in itself.

In a population of hospitalized medical-surgical patients (Cameron, 1993.) unmet needs were important to identifying indicators of discomfort where the nurse can intervene to provide comfort. When patients were asked to describe moments of comfort, the descriptions that emerged were highly variable, context specific and subjective. In Cameron's study, instances of comforting are part of a larger construct that she describes as integrative balancing. Cameron proposes that comfort is not just a soothing activity but an individual process whereby the individual not only strengthens his or herself but through appropriate health action, moves toward self-determined goals of health and healing. Nurses, then, assist in this process by providing not only technical interventions, but also information.

In the world of cancer nursing, comfort is considered an essential skill (Bottorff & Gogag, 1995.) . In this study nurses used gentle humor, emotionally supportive statements, physical comfort measures, engaging the patient in social

exchange and providing information on procedures and patient condition to enhance physical and emotional comfort.

Along these lines, Kolcaba writes that comfort is a process as well as a product that is merged in a holistic nursing art (Kolcaba, 1995.). As a process, comfort is reflected in nursing actions and nursing actions are dictated by the perceived comfort needs of patients. Nurses use various strategies in comforting, however, comforting is not a passive process, something that is done to the patient. The patient is actively involved in explicating his or her own comfort needs and seeking comfort.

In summary of comfort as a process, Morse has described comfort as *“the most important nursing action in the provision of nursing care for the sick”* (Morse, 1983). Nurses have numerous comforting strategies that they draw upon to provide comfort. Talking, touching and listening have emerged as important strategies to provide emotional comfort to patients as well as assist them to endure uncomfortable procedures that may be necessary to save life and promote health (Penrod, Morse, & Wilson, 1999). Providing information to patients about procedures and their condition has also emerged as an important aspect of providing for emotional comfort. Certain acts that provide physical comfort can also provide emotional comfort when they are administered in a caring and engaged manner. The manner in which comforting actions are delivered affect whether the action is perceived as comforting. Finally, comfort actions need to be individualized and patient centered taking into account the

complex physical, social, psychospiritual and environmental needs of patients if they are to be perceived as comforting.

Comfort as a product or outcome of nursing. In addition to comfort as an action or process, comfort has been explored as a product or outcome of nursing interventions. In order to evaluate comfort as an outcome it is helpful to have a measure to assess the level of comfort prior to interventions and then post intervention to determine if improvement has occurred.

Comfort as perceived by the patient. Comfort has also been explored in a hospitalized chronically ill older population (Hamilton, 1989.) In this qualitative study, five recurrent themes emerged from analysis of patient responses. The Disease Process, pain and loss of function emerged is one theme. Self Esteem was another emergent theme. Here patients defined their comfort in the context of how they felt, independent and worthwhile, they reported being more comfortable if they were able to make decisions about their lives and were better informed about their health care. Positioning emerged as another theme where patients reported being positioned correctly was a factor that contributed or, in the case of incorrect positioning, detracted from comfort. Approach and attitudes of staff were another factor in comfort. Patients reported that empathetic nurses increased their comfort. Hospital Life was a fifth theme that emerged. Here, patients spoke of the hospital environment. This was a long-term care hospital and patients talked about how the home-like environment contributed to their comfort such as being able to get dressed in their own clothes and having

personal items in their room. Social activities as part of the Hospital Life were also reported as contributing to comfort; activities such as being able to go with family members for a cup of tea. The Hospital Life also emerged as a major detractor from comfort. A large number of patients reported that inflexible routines, boredom with structured leisure activities, sharing their space and lack of privacy detracted from comfort. The reports of these patients reinforce Kolcaba's theory (Kolcaba, 1992a) that the environment plays an important role in patient perceptions of comfort. Hamilton concludes that the nurse must clarify the meaning of comfort with each individual in order to individualize the care

In an ethnographic approach, comfort from the perspective of Hispanic immigrant cancer patients has been studied (Arruda & Larson, 1992.) Talking and listening emerged as important processes in comfort among these patients. As did Morse, Arruda found that culture influenced patient perceptions of what was perceived as comforting.

Comfort on a ward for older people has also been studied (Tutton & Seers, 2004.) Staff as well as patients on a rehabilitation ward were chosen to inform this ethnographic study. They found that comfort was an individual process and was different for everyone. As a process, comfort emerged as a component of holistic care suggesting the process of providing for patient comfort is more than simply a series of nursing actions strung together to address individual comfort needs. One staff member reported that her view of comfort was from a broader sense and encompassed physical, emotional and spiritual

comfort. She perceived these aspects of comfort as interrelated and not separate. For example, washing someone's feet, while physically a comforting sensation, could also be providing emotional and even spiritual comfort. In this study the approach of staff had a powerful influence on the older patients' perceptions of comfort. Power and organization also emerged as important factors which influenced the achievement of comfort. According to Tutton, patients felt that being ill and in a hospital bed caused them to lose control over their own bodies which thrust them into a position of dependence or powerlessness. This affected comfort in that patients were often unable or restricted from meeting their own comfort needs such as toileting, and had to depend on others for this basic need. Organization influenced patient comfort in that staff were task and routine oriented rather than providing individualized care and this negatively affected patient perceptions of comfort.

Similar to findings by Tutton, in a separate study, personal control in the environment emerged as a method of increasing comfort (Williams & Irurita, 2005.) In this study, feelings of personal control were a central feature of emotional comfort. In some environments, patients are not able or allowed to exercise personal control and this negatively affected patient reports of emotional comfort. Delayed responses to requests for assistance were associated with feelings of reduced personal control and emotional discomfort.

Summary of patient perceptions of comfort. In all of the studies above, comfort from the patient perspective emerged as a highly state-specific and

individualized concept. As such, comfort interventions should be patient centered and individualized in order to provide the highest degree of comfort. There were however, some common themes across the studies. Personal control emerged as a common theme. Patients who perceived a lack of control, particularly in the hospital environment, reported decreased comfort. Comfort was further diminished if patient needs were not responded to in a timely manner. Talking and listening enhanced the perception of comfort. Staff who were engaged in care and took the time to really listen and communicate enhanced the perceptions of comfort, particularly in the older patient population. Finally, the environment emerged as a facilitator and detractor of comfort for many patients. For hospitalized patients a noisy, cluttered and poorly lighted environment detracted from patient comfort as did rigid hospital routines.

Comfort in the environment. Hamilton (1989) wrote about patient perceptions of comfort and detractors of comfort. Hospital Life was reported as a detractor of comfort in older adults in a long-term care facility. A large number of patients reported that inflexible routines, boredom with structured leisure activities, sharing their space and lack of privacy detracted from comfort. Patients also reported on items that enhanced comfort that were related to the environment such as being able to dress in their own clothes, having personal items around them and being able to go for a cup of tea with family members. Expanding on this theme of comfort in the environment Kolcaba (1992) wrote about comfort in an environmental framework. She spoke of creating a facilitative

environment for comfort where controls for noise, light and color were in place. This was in relation to a dementia care unit, however, Kolcaba proposed that the framework for a facilitative environment also applied to the more general practice of gerontology where many cognitively intact older adults may feel they have lost control in an alien environment of the hospital. Comfort is a very important concept in the care of older adults because it denotes attention to individual needs and helps the gerontological patient feel more in control. This is echoed by Cameron (1993) where she writes about the comfort of hospitalized patients, stating that hospitalized people are separated from their usual support group and this further complicates their ability to manage the stress of illness.

Tutton (2003) addressed the environment of the hospital for older adults and observed that the environment of the hospital ward was a place of work as opposed to a place of living. She found that in the hospital setting the focus of nursing was on reacting to discomfort after it occurred as opposed to proactively creating an environment that facilitated comfort. Finally, in an Australian study of hospital environments, Williams (2005) found that feelings of reduced personal control were reported as an important factor in emotional comfort and those who perceived they had increased control were emotionally more comfortable. She concludes that hospital environments should be tailored to promote emotional comfort.

Variables Affecting Comfort

The environment in which health care is delivered has emerged as an important consideration in patients' self-report of comfort, particularly for older adults (Cameron, 1993.; Tutton & Seers, 2004.; Williams & Irurita, 2005.). While there is an objective environment that exists independent of a person's perception, there is also a subjective environment which is the environment that is perceived and described by the person. Patient perceptions of the environment undoubtedly influence the patient's self-report of comfort.

Perception of control has emerged as an important influence on comfort, particularly for older adults (Cameron, 1993.; Tutton & Seers, 2004.; Williams & Irurita, 2005.). However, while those who desire control may report decreased comfort in an environment such as the hospital where there is perceived loss of control, this may not be true for others. For perceived loss of control to be a factor, the patient must have a desire for control to begin with. The patient's desire for control over his/her surroundings and perception of the ability to achieve control need to be congruent for a good fit (Coulton, 1979). This match between the patients perceived needs and environmental influences is conceptualized as person-environment fit. The same is true for all other variables that may affect comfort. Patient perceptions of needs and the degree to which those needs are perceived to be met, affect perceptions of comfort.

While symptom variables such as pain, anxiety and depression all affect patient self-report of comfort, the environment in which health care is delivered is

an overlay on patient perceptions. For example, a patient who would have been hospitalized to receive acute health care but is treated in HH which enables him to care for his aging pet, could possibly report increased comfort at home, even when moderately acute pain is present. Conversely, the patient who lives in a chaotic or abusive environment may find comfort in the hospital even though he is suffering from acute symptoms of chronic heart failure. The environment in which care is delivered to these patients affects their perceptions of comfort and known variables of comfort. The effect of the environment on patient perceptions of comfort has not been studied extensively and much remains unknown about patient perceptions of the comfort and how they are influenced by the environment in which health care is delivered.

Comfort in the Health Care Environment

The environment in which acute health care is delivered has traditionally been the institutional hospital environment. Home health care has been limited to on-going chronic care that requires skilled nursing or short-term episodic care that is sub-acute and does not require the level or intensity of care that would be experienced in the acute hospital. As discussed earlier in the literature on comfort, the environment in which health care is delivered has emerged as a facilitator and detractor of comfort for

Table 3: Studies Using Kolcaba's Theory of Comfort and General Comfort Questionnaire				
Author	Title	Design/Sample	Variables	Findings
Hogan-Miller, E; Rustad, D et al (1995)	Effects of three methods of femoral site immobilization on bleeding and comfort after coronary angiogram	RCT. 300 patients undergoing three different methods of femoral site immobilization	DV-Bleeding and Comfort IV-3 types of immobilization	No difference in bleeding or comfort between the groups
Kolcaba, K. and Fox, C (1999)	The effects of guided imagery on comfort of women with early stage breast cancer undergoing radiation therapy	RCT. 53 women undergoing radiation treatment for breast cancer	DV – Comfort IV – guided imagery, state anxiety inventory	Guided imagery is effective in enhancing comfort for women undergoing radiation tx for early stage breast cancer
Dowd, T., Kolcaba, K. et al (2000)	Using cognitive strategies to enhance bladder control and comfort.	Quasi-experimental with outcomes measured at four time points. 31 women, 9 men	DV – Comfort IV- audiotaped cognitive strategies, compromised urinary bladder syndrome symptoms (CUBS)	Those using the audiotaped cognitive strategies had higher levels of comfort and improved CUBS
Kolcaba, K. and Steiner, R. (2000)	Empirical evidence for the nature of holistic comfort	Longitudinal at T ₁ , T ₂ and T ₃ . 53 women undergoing radiation treatment for breast cancer.	Concurrent validity using the GCQ compared to vertical analog scale of comfort. Trait and state characteristics of comfort.	Moderate concurrent validity was demonstrated between the two instruments. Comfort is state specific and can change depending on many conditions.
Novak, B., Kolcaba, K. et al. (2001)	Measuring comfort in caregivers and patients during late end-of-life care	Non-experimental convenience sample of 38 patient/caregiver dyads for patients during late end of life (EOL) care	Concurrent validity testing horizontal and vertical analog scales compared to EOL comfort questionnaire. cognitive scores used to determine ability to participate	Moderate concurrent validity between the analog scale and comfort questionnaire. No correlations between caregiver comfort and patient comfort
Kolcaba, K., Dowd, T. et al. (2004)	Efficacy of hand massage for enhancing the comfort of hospice patients.	RCT. 31 hospice patients. 23 female, 8 male. Varying cancer diagnoses, cardiac and copd.	DV-Comfort IV-hand massage, Second DV – symptom distress scale, (includes nausea, fatigue, pain, anorexia, constipation, worry, dyspnea, cough)	Hand massage had no significant effect on comfort or symptom distress in this population

many patients, particularly older patients. This is naturally a concern of nursing because, as discussed earlier, comfort is an important consideration in the provision of nursing care.

To examine comfort in two environments of acute health care delivery, the home and the hospital, is the intent of this study. The home hospital health care delivery system was first reviewed for issues of comfort and to determine the extent to which comfort has been studied in this venue of health care delivery. The hospital literature was then reviewed to determine the extent to which comfort has been studied in a hospital environment.

Home Hospital Literature

Search Strategy. A search strategy was developed using OVID technologies database searching Medline from 1966 to 2006. The keyword search term **hospital** when it appeared in text near **home** was used and produced 63 results for home hospital. The vast majority of these articles were from Australia, the United Kingdom or other European countries.

Home Hospital has been defined as acute care in the home that cannot be provided by usual community based home care (Leff & Montalto, 2004). Home Hospital (HH), unlike routine home health care, is designed to be a substitute for acute health care that is normally administered in a hospital setting. HH is acute health care delivered to the patient in their own home by nurses and physicians. Although HH programs may hold some promise as a potentially less expensive and safe alternative to hospitalization for older adults, little is known about the

effect of this model of care on issues that are important to nursing. The HH model of care has been studied extensively in the Australia, the United Kingdom and other European countries where health care is a national benefit program. However, most of the research on HH, thus far, has centered on the cost of this model of acute health care delivery and medical outcomes as they compare to routine hospital care.

As discussed in Chapter 1, the HH model of health care delivery has not been used extensively in the US. There were only two studies found on actual patients treated in a HH model in the US (Leff et al., 1999; Leff et al., 2005). Other studies, primarily from the United Kingdom and Australia, included various forms of HH in varied populations with varied diagnoses.

Various forms of HH. Leff and Montalto (Leff 2004) propose that a defining attribute of HH is that it is a complete substitution for hospital care, as opposed to an early discharge from the hospital into a HH supportive model. These authors also proposed that, in addition to being a complete substitution for hospital care, HH has two other defining characteristics, 1) it provides an intensity of care (medical and nursing care) similar to that provided in the hospital and appropriate to the illness being treated and, 2) it provides care that cannot be provided by usual community-based home care. They propose that their definition of HH relates to the underlying rationale of the model. The main reason for developing a HH model of care is to reduce the iatrogenic complications that often accompany a hospitalization such as exposure to pathogens, medical error and

deconditioning, to honor patients' wishes for care and reduce expenses.

Although Leff and Montalto believe that early discharge programs do not meet the definition of HH, the literature reports on many programs that are a combination of early discharge from the hospital to HH as well as complete substitution for hospital care.

In HH studies that were strictly substitution for hospitalization, the criteria used to determine the need for hospitalization were not clearly defined. Some of the studies reported that patients were considered suitable for HH if they required hospitalization as deemed by an emergency room physician and met the pre-defined safety parameters for HH. Other studies listed specific criteria, usually in the form of exclusion criteria for HH. It seems that HH is appropriate for the patient who is ill enough to require hospitalization, daily nursing care and daily physician involvement in the medical care plan but, at the same time, not so ill as to be unstable or at risk for a major cardiac or respiratory event that would require immediate intervention.

Early discharges from the hospital to HH programs were also not explicit as to the criteria for determining when a patient was suitable for discharge to a HH program. In many of the early discharge programs to HH it was difficult to distinguish HH care from routine community based care. In some of the early discharge programs, HH was defined by the intensity and type of services needed. If the patient required intensity of services similar to hospital care such as daily nursing assessment of their condition, and/or intravenous medications

and/or daily laboratory work and/or daily physician involvement to reduce, increase or change prescribed medications, the patient was deemed appropriate for HH care.

Some of the HH programs in the literature met the strict definition of HH as a complete substitution for hospitalization. Other programs were a mix of early discharge as well as hospital avoidance programs. Still others were solely an early discharge program, requiring a patient to be hospitalized briefly before being considered eligible for the HH services.

The definition of HH is not clear in the literature. In one study, HH was defined simply as a program which delivers acute care to appropriate patients in their own homes (Montalto & Dunt, 1997). In a Cochrane database review of several HH articles, the author of the review defined HH as a service that provides active treatment by health care professionals, in the patient's home, of a condition that otherwise would require acute hospital in-patient care, always for a limited period (Shepperd & Iliffe, 2005). In a recent study of HH model of acute health care in the U.S., it was suggested that HH models of care in other countries, with few exceptions, would be difficult to distinguish from augmented skilled nursing services, community based long term care or home based primary care in the U.S. (Leff et al., 2005). Nevertheless, treatment at home rather than in a hospital setting holds some promise as a safe alternative for acute health care delivery for some patients.

The Shepperd (Shepperd, Harwood, Gray, Vessey, & Morgan, 1998) study randomized 500 patients with varying diagnoses and ages into HH and a control (routine hospital care.) Cost items analyzed were length of stay, medications, outpatient visits to clinic, home visits and journeys made by ambulance or health service car. The study found no significant difference in cost between traditional hospital (TH) and HH for elderly medical patients for hip or knee replacement patients. HH was significantly more costly for hysterectomy and COPD.

In Bristol England, Coast (1998) employed an experimental design where elderly patients (n=241) who were already in the hospital and required only nursing or rehabilitative care or both were randomized to stay in the TH or be discharged early to a HH program that provided nursing, therapy and personal supportive care in the home. No significant difference in outcomes was reported.

Jones (1999) reviewed cost items on 199 patients from a parent study (Wilson et al., 1999) that randomized 102 to HH. When cost between the two programs, HH versus TH care, was analyzed on an intention to treat model, the costs were similar. When analysis was restricted to those who accepted their allocated place of care, HH was significantly cheaper. Jones does not report any outcome variables for this study, however, the parent study reported no significant difference in outcomes of mortality or self reported health status.

Board (2000) conducted a randomized controlled trial in Sydney Australia where 51 elderly medical patients were randomized to HH. He concluded that HH

is significantly less costly than TH. The HH mean cost of an episode of care was \$1,764 compared to the mean cost of the TH control group at \$3,614. For outcome measures, Board briefly reported that the outcome variables of death at six months, readmission within 28 days and adverse events were not statistically different between the groups.

Campbell (2001) performed a retrospective cost analysis of 51 elderly patients from a west London hospital where 30 received HH. Analysis of mean cost including cost at a three month follow-up indicated HH was about three-fifths the cost of TH admission. The Campbell study reported only cost data and made no comparison of outcome data between the groups.

Nicholson (2001) in Brisbane, Australia randomized 13 patients to HH. The HH average cost was \$745 compared to the TH (control) group at \$2543. Nicholson reports in her abstract that lung function in the hospital group was slightly better at the next outpatient clinic visit and that decreased anxiety was observed in the HH group. However, there is no further mention of these outcome variables in the body of the research article.

The majority of the HH articles reviewed indicated that HH programs were cost effective and overall exhibited lower costs per patient when compared to standard hospital care. One of the articles, (J. Jones et al., 1999), had mixed results, while another article (Shepperd, Harwood, Gray et al., 1998) concluded that there was no evidence that HH was any more cost effective than routine hospital care. All of the articles concluded that HH was at least as effective as TH

with regard to clinical outcomes. The majority of the articles reviewed that reported length of stay, reported a shorter length of stay in HH when compared to TH.

HH in the United States. As mentioned previously, HH in the United States has a strict definition. HH is not simply enhanced community based care, but is a substitution for acute hospital care such that, if the program were not available, the patient would certainly be hospitalized in order to receive the level and intensity of health care services provided. As such, HH has not been used extensively in the U.S. The reasons for this are complicated and are influenced by the dominant paradigm of corporate health care in the U.S.

In 1961, President Dwight D. Eisenhower, in his farewell speech, warned the nation against what he termed the “military industrial complex.” His concern was that companies who stand to profit from military expenditures would come to exert influence over the politicians and government officials and their decision making as to how much of the budget should be devoted to military spending. In classical works from the 1980’s some researchers identified that the U.S. health care system had transformed into what some termed the “medical industrial complex” (Engelhardt & Rie, 1988; Hillman, Nash, Kissick, & Martin, 1986; Maloney, 1998; Relman, 1980). The medical industrial complex refers to transformation of the previous “cottage industry” of medicine into a profit-making industry controlled by corporations (Navarro, 1986) Some believe that the problems of corporate control, overuse of a profit driven health care industry and

health insurance reimbursement practices have influenced policy making and not served the consumers of health care very well (Navarro, 1986) Hospitals, particularly corporate-owned hospitals, must keep their hospital beds full in order to maintain an acceptable profit margin for their stock-holders.

There are only two studies that have been published on the HH model of acute health care delivery for older adults in the U.S. One study that was conducted in the US was performed on a very small sample of only 17 HH patients compared to a control group of 123 TH patients. This study was conducted on a pilot HH model that was constructed specifically for the study where continuous nursing at home and daily physician home visits were performed. Patients treated in the HH had comparable clinical outcomes to patients treated in the TH and were highly satisfied with HH (Leff et al., 1999). Cost analysis in this pilot study showed that HH cost was approximately 60% of hospital costs. A follow-up to this pilot study was a quasi-experimental study conducted at three sites in the U.S. and had similar findings to the pilot study (Leff et al., 2005). Patient and family satisfaction was higher in the HH when compared to the hospital group, clinical outcomes were comparable between the groups, however, the HH had fewer clinical complications such as falls, delirium and hospital acquired infections. The length of stay in the HH group was shorter with a mean length of stay in HH a full day less than the hospitalized group.

Critique of HH Literature

Overall, heterogeneity of the studies in design methods and sampling made comparison across the studies impossible. All of the articles that evaluated any outcome variables reported no significant difference between HH and TH care. In general, evidence of the effectiveness of HH models was positive.

There is some evidence to support the cost effectiveness of the HH model. Although health care funding is significantly different in the other countries where HH is used, the patient populations who benefit from HH are similar.

Of all the HH articles reviewed, only three made mention of patient comfort in the HH model of care and only one of those actually measured comfort (Leff et al., 1999). The Leff (1999) study did not give any detail on the measurement instrument aside from reporting that average patient comfort was 15.5 on a scale of 16. Of all the HH studies that were reviewed, none of the studies were qualitative in design nor did any of the studies include a defined qualitative component. Some of the studies included anecdotal information and various patient and family comments about comfort and satisfaction with the HH model of care as mentioned above, however no in-depth analysis was done on the patient experience with the HH model of care or patient perceptions of comfort.

Review of the Literature on Hospitalization and Comfort

Much of the research that has been done in the hospital environment in relation to comfort has been discussed in the literature review of comfort. With

the exception of the studies that have already been discussed under the review of literature on comfort, other studies examining comfort in the context of the environment of the hospital are scant. Most articles on comfort did not specifically focus on the environmental aspect of acute health care delivery. There is, however, evidence of the experience of discomfort for older adults in acute hospital settings even though it is not characterized as discomfort in the literature. For example, studies reporting that patients age 65 and older suffered diagnostic mishaps at twice the rate of other hospitalized age groups, four times the rate of therapeutic mishaps, two and one-half times as many drug complications and nine times as many falls as those under the age of 65 (AARP, 2000; Rothschild, 2000). The presence of pre-disposing conditions in the 65 and older population, for example, cognitive impairment, acute illness, and visual and auditory impairment, makes older adults particularly vulnerable to confusion and accidents in unfamiliar environments such as the hospital (Inouye et al., 1999). Therapeutic and diagnostic mishaps as well as accidents such as falls and drug complications can be characterized as uncomfortable experiences in the hospital setting. Additionally, the stress of an unfamiliar environment, strange noises and routines in the hospital are all detractors of comfort.

Cameron (1993) writes about patients in the hospital environment of a large teaching hospital in a metropolitan area. Cameron observed that people in the hospital were separated from their usual support network, dwelling in the strange world of the hospital environment which placed new and unique

demands on the patient in addition to the existing illness. Person-environment fit theory is mentioned by Cameron (Cameron, 1993.) as a means of understanding a process she terms integrative balancing. Integrative balancing requires that the patient have sufficient information from experts, in this case health care professionals, to make decision regarding their own role in achieving wellness. In this study, comfort was not a passive process. The patient was actively engaged in processes described as promoting comfort such as perceived control. Patients did not perceive control without first having adequate information.

In the study by Tutton (2003) patients, as well as hospital staff, identified the environment of the hospital as a source of discomfort. The ward that was chosen for this study was a rehabilitation ward for older adults rehabilitating from cerebral vascular accidents and hip fractures and surgery. The finding of comfort in this environment was that comfort was not consistently provided and that some ways of routine working in the hospital environment promoted discomfort. Patients verbalized that it was the “little things” such as staff taking time with the patients and making them feel like individuals through a touch or personal conversation or inquiry about something the staff new was important to the patient. Impersonal and hurried care made the patient uncomfortable.

Williams (2005) suggested that the TH environment impacts the healing potential of the patient. The feelings of loss of control in the hospital environment adversely affected that patient’s emotional comfort which was articulated by the patient as discomfort. Length of stay also played a role in comfort. Initially, the

acutely ill patient was not as concerned with the environment, but as they recovered, little things in the hospital environment, such as not having their own things around them became more important.

In conclusion, the unfamiliar TH environment and routines, in addition to medical error and accidents in the TH, arguably affect the patient's perceptions of comfort in the environment, even if perceptions of comfort are not explicitly stated in the study. Certainly, there are some benefits to being hospitalized for some patients such as immediate access to critical life-saving devices and the staff who know how to use them. Additionally, ready access to sophisticated diagnostic equipment as well as an army of specialized health care professionals holds some benefit for some acutely ill patients in the hospital. However, for the patient who is acutely ill enough to need intravenous medications, oxygen supplementation and daily, but not constant monitoring, findings from HH models in use in other countries indicate that model of acute health care delivery may hold some promise as a viable alternative to traditional hospitalization.

Summary

Comfort is a basic human need that must be met before the patient can turn his/her attention to getting well (Malinowski & Stamler, 2002). According to Kolcaba (1992) patient comfort, particularly for the gerontological patient with chronic disease, is affected by the environment. Hospitalizing older adults exposes them to an alien environment in which there are numerous detractors of comfort that hinder the patient's ability to achieve a state in which comfort can

exist. In the traditional hospital, the patient must transcend detractors of comfort in their environment in order to achieve a state of comfort. In acute exacerbation of chronic illness, older adults are least able to physically and cognitively adapt to transcend detractors and achieve comfort in the hospital. Additionally, older patients prefer home as a place to get well (Burton et al., 1998a; Coley et al., 1996; Dubois & Santos-Eggimann, 2001; Fried, van Doorn, O'Leary, Tinetti, & Drickamer, 1999). In studies where patients were asked, one of the most frequently cited reasons for preferring to receive health care at home is comfort with the home environment (Burton et al., 1998a; Dubois & Santos-Eggimann, 2001; Leff et al., 2000; Montalto, 1996; Wilson, Wynn, & Parker, 2002). By not exposing the patient to the hospital environment and allowing the patient to remain in his/her preferred setting, the home environment, we obviate the need for the patient to achieve transcendence in order to experience comfort in their environment.

In the review of the literature, comfort emerged as an important concept for patients as well as nurses. Patients strive to meet their comfort needs and nurses assist with interventions to help patients achieve a state of holistic comfort. The environment in which the patient dwells has also emerged as an important context in which comfort is experienced. Environments can be facilitators or detractors of comfort for patients. The hospital environment, in particular for older adults, has been reported as a detractor of comfort. Loss of

control in the hospital environment has been reported in several studies as being a major detractor of comfort.

Home Hospital has been reported as receiving high satisfaction scores among patients who have been treated in this model of care. Home is a normal and natural environment of people living with their families. For the aged and chronically ill, home is a more comfortable atmosphere than institutional settings (Mann, 1997). At home, patients are surrounded by their usual support group and by their own possessions. They are able to dress in their own clothes, eat their own food and have some control over who enters their environment and how their health care plan is constructed and delivered. This has resulted in anecdotal reports of increased comfort in HH models of care. However, there have been no studies specific to the patient's comfort experience in the HH model of care.

Comfort belongs to the person describing it. It is state-specific and can be influenced by many variables. At one moment a person may describe that they are very comfortable, in the next moment a phone call from their child, or a news story on the television can abruptly thrust them out of their "comfort zone." Acute illness creates pressures on patient perceptions of comfort and this affect may be further complicated by the environmental pressures of the hospital. Conversely, the environment of the hospital may relieve some of the pressures depending on the patient's perception of the hospital environment. If patients believe that being surrounded by numerous health care professionals, a strict hospital routine and sophisticated diagnostic equipment is essential to their survival, they may

perceive the hospital environment as comforting. Whereas, if the patient perceives the personnel, routines and environment of the hospital as a burden, he or she may describe discomfort in the hospital. The same is true for patients treated for acute illness in the home setting. For some, treatment at home may enhance perceptions of comfort while, for others, it may detract from perceptions of comfort. Exploring the nature of comforts and discomforts that are related to the settings in which health care is delivered is the aim of this research.

This study explored the patient's comfort experience in a HH model of care and compared patients' self-report of comfort in HH to comfort in the TH setting. Access to one of the only known operational HH models of care in the U.S. was available through the Department of Veterans Affairs Medical Center in Portland Oregon (PVAMC). Veterans receiving treatment for acute exacerbations of chronic illness at home and in the hospital were the subjects of this study on comfort and the environment in which health care was delivered. The specific aims of this study were:

Aim 1. To explore and describe patient perceptions of comfort in the home environment and the hospital environment.

Aim 2. To examine specific issues of comfort using instrument scores to stratify and further analyze high and low self-report of comfort.

Aim 3. To describe and compare what constitutes comfort for patients cared for at home vs. in the hospital.

When little is known about a phenomenon, in this case comfort in the environment, an exploratory study is appropriate to examine the question of how the environment affects comfort. This study examined the effect of the environment in which health care is delivered on patient self-report of comfort. Through qualitative inquiry into patient perceptions of comfort in the context of the home and hospital environment, a better understanding of subjective influences of the environment on patient comfort was gained. For acutely ill older adults, perceived needs, environmental presses, symptoms and perceptions of control varied according to the individual and the environment in which the health care was delivered.

Operational Definitions

Because several of the constructs of importance to this study are complicated and multi-dimensional, operational definitions specific to this study are necessary.

The environment was operationalized as either home or hospital.

Home was defined as the patient's usual dwelling place that is a house, apartment, mobile home or other single or multiple family dwelling place in the community, including foster homes and retirement homes. For the purposes of this study, home does not include a nursing home or other institutional setting.

Hospital was defined as an institution with wards and beds that is designed to deliver acute health care, usually for a brief period, until the patient is

deemed well enough to be discharged to home. For the purposes of this study, the hospital was not a long-term skilled nursing facility or assisted living facility.

Comfort was defined as the immediate state of being strengthened by having the needs for relief, ease and transcendence met. Comfort was operationalized as patients' scores on the General Comfort Questionnaire (GCQ.)

Patient Perceptions were operationalized as descriptive exploration into themes of patient needs, environmental presses, described symptoms, perceptions of control and comfort.

CHAPTER 3

Research Design and Methods

Design Overview

The design for this study was exploratory and descriptive examining the patient's experience of comfort in acute illness within the context of the environment where health care is delivered. This study explored the comfort experience in the settings of a home hospital (HH) and traditional hospital (TH) for acutely ill older adults. The aims of this study were:

- 1) To explore and describe patient perceptions of comfort in the home environment and the hospital environment.
- 2) To examine specific issues of comfort using instrument scores to stratify and further analyze high and low self-report of comfort.
- 3) To describe and compare what constitutes comfort for patients cared for at home vs. in the hospital.

Methodological Perspective. The ultimate goal of any inquiry is to gain understanding about the world in which we live. Two distinct approaches to gain understanding exist; scientific inquiry, which is associated with a positivist paradigm, and naturalistic inquiry, which is associated with the constructivist paradigm. A constructivist/interpretivist view presumes that the life-world is created by each individual and interpreted in a manner unique to that individual. The axiologic assumption of naturalistic inquiry is that subjective values and

interpretation are expected and desirable. Methodologically, it is assumed that naturalistic inquiry is an inductive process with emphasis on narrative information and qualitative analysis in which patterns or themes are sought (Polit & Hungler, 1999 p. 11).

The methods used to explore the world differ depending on the paradigm to which the scientist subscribes. The approach for naturalistic inquiry is direct involvement with the individuals undergoing or experiencing specific phenomena. The involvement by the researcher is in the form of observation or interview with the participants of a study.

This study used a mixed methodology in the analysis portion using a quantitative instrument as well as qualitative interviews. Mixed methods research is defined as a study which uses qualitative and quantitative data collection and analysis techniques in either parallel or sequential phases (Teddle & Tashakkori, 2003). According to Bliss (Bliss, 2001) mixed methods offer a means to “deepen insights, sharpen our thinking, develop sensitive methods, and accelerate our advances.” The decision to undertake a mixed method study should not be taken lightly as there exists a long and checkered history of issues dividing the naturalistic paradigm (Lincoln & Guba, 1985) from the traditional empiricist approach to investigation using quantitative methods (Johnstone, 2004). Nevertheless, mixed method research has gained greater acceptance in the last decade, particularly with the discipline of nursing which subscribes to holistic concepts of patient care.

There are many reasons a researcher may choose to conduct a mixed method study. One reason is that mixed methods research can answer questions that quantitative or qualitative methodologies alone cannot. For example, qualitative methods may provide a rich and deep understanding of individual views with little or no emphasis on the number of participants with those views making it difficult to generalize findings to larger populations, whereas, quantitative analyses naturally cluster around the mean where the majority of items being measured lie and may overlook important information to be learned from outliers. Mixed methods provide an opportunity to present greater diversity of divergent views (Teddlie & Tashakkori, 2003). In the analysis stage of the research, mixed methods allow the researcher to use two types of data to triangulate and verify findings. Quantitative studies can provide numeric data where large numbers allow the researcher to infer. However, a weakness of quantitative studies is that statistical outliers from the mean are small in numbers and, by virtue of the method used, are not considered equally with the larger numbers that cluster around the mean. Qualitative inquiry considers all data equally and “levels the playing field” so to speak.

This study of comfort in the HH or TH used mixed methods to answer questions that could not be answered by using strictly qualitative or quantitative methods, such as holistic levels of comfort (quantitative data) and identification of specific conditions, situations and physical environmental considerations that enhance or detract from perceptions of comfort for older adults (qualitative data).

Comfort is a holistic concept and the use of a measurement tool to capture the multiple dimensions of comfort allowed stratification of the sample into high and low holistic comfort. The sum of comfort is greater than the parts. However, the nuances of comfort enhancers and detractors cannot be measured quantitatively and must come directly from the participant. Some of the richest qualitative data on comfort came from the “outliers” on the quantitative instrument.

When using a mixed method design, however, it is important to identify the theoretical driver of the study and to define the role of the imported component (e.g. how quantitative data informs a qualitatively driven study) (Morse, 2003). Comfort is a highly individualized concept, therefore, the theoretical driver of this study was inductive which called for a qualitative driver for the study. The design of the study was therefore a QUAL+quan design (Morse, 2003 p. 197). The imported component of the study, the quantitative portion, was then used to enhance the analysis of the data by allowing stratification of the sample according to comfort score and location of care. The procedure for this is explained further in the analysis section. Because comfort may also be a highly labile state where individuals move in and out of comfort several times a day, this introduced an important temporal component to the study. The role of the quantitative method in this study was to measure overall comfort at the time qualitative information on comfort was being gathered in order to obtain a global and holistic comfort score that considered the four contexts in which comfort occurs: physical, psychospiritual, environmental and social and the three types of

comfort; relief, ease and transcendence. This allowed measurement within the domains of comfort identified by Kolcaba to stratify the sample and enhance understanding of the qualitative data (Creswell, 2003) (Teddlie & Tashakkori, 2003).

Qualitative Method and Instrument. The qualitative method used for this study was qualitative description. The goal of qualitative description is to “provide a comprehensive summary of events in the everyday terms of those events.” (Sandelowski, 2000b) Qualitative description was appropriate to explore and describe patient perceptions of comfort for a number of reasons. Qualitative description is the method of choice when a straight description of the phenomenon is required. A straight description of comfort in the “eyes of the beholder” so to speak, was desired for this study. The intent of this study was to stay close to the data and surface of words and events for the purposes of exploring the everyday comfort experience for older adults who are treated at home or in the hospital for exacerbation of chronic illnesses. Because comfort is a labile and state specific experience, temporal issues as a threat to the validity of the study were also considered in choosing the methods. Repeated visits with participants at different points in time that are often seen in phenomenologic or grounded theory studies were not appropriate for this study because of the labile nature of the comfort experience. Comfort for a patient today may be very different and described much differently by the patient tomorrow. Also, for reasons that will be discussed later in the protection of human subjects,

prolonged engagement that is often seen in ethnographic studies was not appropriate for this study of acutely ill older adults.

Semi-structured interviews were conducted with acutely ill older adults who were receiving hospital level medical treatment and nursing care in a traditional hospital setting or in a home hospital setting. Patients were asked open-ended questions such as:

1. Tell me about how comfortable you are feeling right now.
2. What makes you feel comfortable here?
3. What makes you feel uncomfortable here?
4. What does comfort mean to you?
5. What benefits/problems do you see with being hospitalized/treated in HH?
6. What about being at home (in the hospital) affects how comfortable you feel?. Are there particular environmental aspects that make a difference to you? Social aspects? Physical aspects Psychological or spiritual aspects?
7. Now that you know what the hospital/HH is like, would you choose it again? Could you tell me about why you feel this way?
8. If there were an alternative to hospitalization, for example, if you could be treated at home for your condition, is that something that would interest you?

The interview guide evolved as the interpretive process evolved and additional questions were asked. For example, the TH participants were asked “If there were an alternative to being in the hospital, for example, being treated at home, is this something that would interest you?”

Initially, many participants had difficulty expanding on their perceptions of comfort beyond immediate physical comfort. The first question asked during the interview was, “Tell me how comfortable you are feeling right now.” Most participants from the first seven interviews struggled with articulating their comfort beyond

Table 4 – 28 Questions Covering the Context and Type of Comfort

	Relief	Ease	Transcendence
Physical	9, 12	13, 16	2, 3
Psychospiritual	15, 26, 28	4, 17	5, 27
Environmental	7, 20	18, 25	11, 14, 19, 21
Social	8, 22	1, 23	6, 10

simple physical comfort. This issue was discussed in a dissertation seminar forum during which advice from an experienced qualitative researcher was to initially ask the participant to think back to a time in their life when they were particularly comfortable or uncomfortable and talk about that time. This strategy allowed for probing into what they were thinking and feeling at that time, who was involved and whether it was emotional discomfort or physical. This strategy was employed with the eighth interview and did result in the participants being better able to articulate their thoughts, and expanded the view of comfort in the present.

The strategy was used in all subsequent interviews. Both groups, when asked to remember a historical event in which they were particularly uncomfortable, frequently described the death of a family member or a pet as being a significantly uncomfortable event in their life. Only three participants (2 HH and 1 TH) described historical physical discomfort in response to being specifically asked to think back to a time in their life.

Quantitative Method and Instrument. The use of a quantitative instrument in this study was strictly for purposes of description rather than statistical inference (Sandelowski, 2000a). The quantitative portion of this study was intended to capture the patients' views of comfort at a specific point in time using the short form of the General Comfort Questionnaire (Appendix A) developed by Kolcaba (2006) specifically for a frail older adult population. The questionnaire contains 28 items which tap into the context of comfort, physical, psychospiritual, social and environmental and the types of comfort, relief, ease and transcendence (Table 1.) According to Kolcaba, the shortened form decreases the burden on the frail older adult. Therefore, the shortened form of the GCQ was appropriate for use in this population of older adults who were acutely ill (Kolcaba et al., 2006). The reliability of this instrument, Cronbach's alpha, is reported to be between .76 and .88 (Kolcaba, 2003.). Validity studies demonstrate good concurrent validity with a visual analog scale for comfort (Kolcaba & Steiner, 2000) (Novak et al., 2001). Expert review of the GCQ confirmed that the questions covered the content domain of comfort (Kolcaba, 2003.). Factor

analysis (Kolcaba, 2003.) showed that the GCQ loaded on the three types of comfort; relief, ease and transcendence.

Sample

Sample Size. The rationale for sampling in qualitative and quantitative methods is divergent. Quantitative samples usually involve probability sampling, while qualitative sampling usually involves purposeful sampling in order to target participants who experience a particular phenomena (Sandelowski, 1995). In quantitative studies, issues of power to detect significant differences drives the sample size considerations (Frankfort-Nachmias, 2002). In qualitative studies, the events, incidents and experiences, not the people, are the objective of purposeful sampling (Sandelowski, 1995). In this study purposeful sampling was used to select patients who meet inclusion criteria for being an acutely ill older adult receiving health care in a traditional hospital or a home hospital setting. In what Patton has identified as a subcategory of purposeful sampling (Patton, 2002) criterion sampling was employed. Criterion sampling is a sampling and review of cases that meet a pre-determined criterion or criteria. In this case, as mentioned above, the criteria were older patients who had received acute hospital level care either as a hospital in-patient or a home hospital patient. The phenomenon of interest was comfort in the context of the environment (home or hospital.) As the interviews progressed, criterion sampling techniques were employed to assure an equal number of like diagnoses in the TH and HH samples. The result was four participants in each group with a primary diagnosis

of COPD, CHF or CAP and three patients in each group with a primary diagnosis of cellulitis. Qualitative analysis of the data from each interview occurred using a constant comparative method until information redundancy was achieved (Sandelowski, 1995). This process drove the sample size. Interviews were conducted with 15 participants in each group (home and hospital). Information redundancy was achieved between 10 to 13 participants and additional interviews were conducted to achieve a sample size of 15 in each group and assure redundancy.

In order for the groups, HH and TH, to be comparable to each other it was important that the hospitalized patient not be so ill as to have his/her illness overshadow the issues of comfort in the environment, therefore, the TH patient must have been deemed appropriate for HH care, but did not receive HH care for one of the following reasons, 1) patient lived outside of the HH catchment area or 2) HH was closed to admissions at the time the patient would have been eligible for care or, 3) the patient lived in a building on a second or higher floor with no elevator. The study was focused on the comfort experience in the context of the environment. As such, comparing the comfort experience of a hospitalized 90 year old woman with late stage CHF who was not stable enough for HH treatment to that of a 55 year old man with cellulitis treated in HH would certainly reveal differences in the comfort experience. However, the perceptions of environment as an overlay to the comfort experience might be obscured by the extreme differences in age, gender and diagnosis. For this reason, the samples

selected for HH and hospital were comparable along the attributes of age, gender and diagnosis.

Access to Sample and Recruitment. The setting for the research was a large tertiary medical center and teaching hospital located in the Portland, Oregon metropolitan area. This center maintained a significant acute inpatient program providing a range of medical and surgical services to the veteran population. The medical center also maintained a home health program within which it operated a small HH program that was limited to a census of 3 patients at any one time. The HH program accommodated early discharge as well substitution for hospitalization for four diagnoses; exacerbation of COPD, CHF, Cellulitis and CAP.

Recruitment. Routine screening was conducted by the HH screener for appropriateness for HH treatment for all admissions to the medical center with the above-mentioned diagnoses. Screening lists were reviewed and patients meeting the inclusion criteria for this study were identified. The researcher then contacted the nurse in charge of the patient's care and requested that the nurse approach the patient and give him a one-page information handout (Appendix D) about the study. If the patient was interested in participating, he informed the nurse in charge of his care who then informed the researcher. The researcher then visited the patient in the hospital or called the patient at home to arrange for a visit, depending on venue of care.

All participants in the HH sample as well as the hospitalized sample were older adults (at least 55 years of age.) The HH program targets older adults because the literature reports that there are benefits unique to older adults for being treated in a HH model of care. These benefits are discussed in detail in Chapter 2. CHF, COPD, cellulitis and CAP are four common hospital admitting diagnoses for older adults. Some of these older adults receive hospital care and some receive HH care. The screening criteria for the HH program considers issues of caregiver presence in the home and/or patient's ability to care for themselves. Also, severity of illness as well as patient's cognitive status is considered before patients are deemed appropriate for the HH model. The patient's housing arrangement is also considered, in that, patients living in second or higher story apartments with no elevator and who have acute CHF or COPD are considered not appropriate for HH.

Inclusion Criteria. All patients who entered the medical center with an admitting diagnosis of COPD, CHF, cellulitis or CAP were screened by the HH nurse to determine if the patient was a candidate for HH treatment. The initial screening by the HH nurse for appropriateness for HH included patients being alert and oriented and considered illness severity.

For purposes of this study, patients were included in the HH groups of participants if they were admitted to HH and agreed to participate in the study. Hospitalized patients were included if they met the criteria for admission to HH but did not receive HH care because they lived outside of the HH catchment

area, HH was closed to admissions at the time the patient would have been eligible for care, or the patient was considered not appropriate for HH due to 2nd story living situation. By meeting the screening criteria for HH but not receiving HH care, it was assumed that the patients in the hospital group were comparable to the HH group on issues of cognitive ability and illness severity. In order to participate in the study, patients consented, were able to read and understand English and were 55 years of age or older.

Procedures

Protection of Human Subjects. Approval for this study was obtained from the Institutional Review Board (IRB) of the Portland Veteran's Administration Medical Center. All participants assented to hear more about the study to the nurse in charge of his/her care prior to being contacted by the researcher for this study. Once a patient had assented, the researcher visited the patient and informed him or her about the study and obtained written consent for participation prior to data collection. In addition to the purpose of the study, exploration of comfort, it was explained to the patient that the interview would be transcribed and de-identified. Also, it was made clear to the patient that the choice to participate or not belonged to them and their decision would not, in any way, affect the care they received.

The potential risks to patients for participating in this study were limited to fatigue or psychological discomfort from speaking about comfort and discussing experiences of comfort or discomfort. The potential for fatigue was minimized by

limiting the session to 60 minutes or less. Also, the typical patient who was eligible for HH care was less acutely ill than the average patient who requires hospitalization. By limiting the hospital group to those who would qualify for HH, this assured a group that was able to easily tolerate a 60 minute interview session. In addition to informing the patient at the beginning that they may terminate the interview at any time they feel too fatigued or uncomfortable to continue, the researcher on this study was an experienced nurse with extensive home health and acute hospital experience with older patients and was able to detect fatigue or burden on the patient.

Consideration of fatigue influenced the design of this study to minimize potential impact on the participant. Although this group of acutely ill older adults was typically less acutely ill, which is why they qualify for HH treatment, nevertheless, their ability to tolerate stimulus was reduced. Therefore, the qualitative design of the study was selected to avoid the requirement for prolonged engagement that is often employed in other qualitative approaches. If fatigue or burden was suspected at any time, the researcher verified with the patient his/her ability or desire to continue. The well-being and “comfort” of the patient remained the priority in this study.

Additionally, it was important to interview the acutely ill older adult on day two or day three of their admission to the HH or TH. Day one of admission to either environment of care was considered and determined to be unsuitable for interviewing. The first day of admission to the hospital or HH environment is

typically a busy day with many procedures and numerous health care personnel interviewing the patient. Addition of a research interview was determined to be an unnecessary burden to the patient. Because the average length of stay for HH patients was 3.1 days, all of the interviews occurred on day two or three.

Interviews and Data Collection. Routine care for most patients with COPD, CHF, cellulitis or CAP is to be admitted to the hospital or the HH program. Upon admission to either HH or hospital, the nurse in charge of the patient's care briefly described the research project to the patient and determined if the patient was interested in learning more about the study. A brief one-page handout about the study was given to the patient. If the patient expressed a desire to participate in the study, the contact information for the patient was passed on to the investigator.

The researcher contacted the patient to fully explain the study and answer questions. At that time, the patient was informed that they would receive a \$25 gift card to Fred Meyer in appreciation for their time. If the patient was not interested, no further contact was made. If the patient was interested in participating, signed consent for participation in the research project was obtained. During the course of recruitment there were seven patients in the hospital who met the criteria for this study who declined to participate. There were no declinations in the home hospital arm of the study. It was difficult to determine the reasons for declining to participate among the hospitalized patients as the refusal was given to the nurse in charge of their care. When the

declination was passed on to the researcher, the nurse was asked if he/she had any insight into why the patient declined. In four instances, the nurse stated she believed the patient was either too tired or too uncomfortable to participate.

When conducting a mixed method study, the researcher must decide in what sequence the quantitative and qualitative aspects of the inquiry will be conducted. Some guidance for the sequence of data collection in a mixed methods approach is offered by Creswell (Creswell, 2003). According to Creswell, implementation, priority, integration and theoretical perspective should be the criteria for choosing a strategy. The implementation for this study was a concurrent design where both qualitative and quantitative data were collected from the same participants. The priority factor for this study was qualitative because the aim of the study was to explore comfort in the context of the environment. Integration of the two methods employed in this study occurred during the analysis phase of the study.

Finally, the theoretical perspective for this study was twofold. Theory of comfort and the person/environment competence press model informed this study. Previous work on the theory of comfort and resulting comfort scoring instrument by Kolcaba assisted in the analysis for aim 2 of this study, to examine specific issues of comfort using instrument scores to stratify and further analyze high and low self-report of comfort. The person/environment competence press model as developed by Lawton informed the analysis of perceptions of participants that are influenced by environmental factors. In this case, the home

and hospital environment. Comfort as a holistic phenomena and comfort theory as proposed by Kolcaba was one perspective. Person-environment fit as an overlay to comfort was another theoretical perspective in this study. Little is known about comfort in the environment of the HH model and how it compares to comfort in the traditional hospital environment. The aims of this study were to explore the phenomena of comfort in these environments. The thrust of the study was exploratory and qualitative techniques were the primary approach to learning more about the phenomena. The data collection sequence was driven by the priority in the study which was qualitative. Therefore, the qualitative interview occurred first and the quantitative instrument was administered after the interview.

After consent was obtained, the patient was interviewed about his perceptions of comfort using the open-ended interview questions. Once the interview was completed the GCQ was administered. Patients were then given the opportunity to add additional comments after completing the GCQ if they so desired.

Privacy, Confidentiality and Interruptions. There were two settings in which this research took place. In some cases the data were collected in the patient's home and in other cases the process occurred in the acute hospital.

In the home setting no issues of privacy were encountered. Most home patients who did not live alone had only a spouse or significant other who either stayed to listen to the interview, with permission of the patient, or left the room

while the interview was conducted. In the hospital many of the patients had a roommate. All of the participants were asked if they would prefer a private setting in which to conduct the interview. Most declined. One patient was escorted to a private conference room and a “do not disturb sign” was posted on the door. For the others, the bed curtain was pulled around the bed and a “do not disturb” sign was posted on the curtain. Additionally, in order to minimize interruptions, most of the hospital interviews were conducted in the evening when the ward activity was typically lower and patients were not receiving as many procedures or other interruptions that occur during the day shift in the hospital. The ultimate decision remained with the patient on the most appropriate time to conduct the interview.

Although precautions were taken to minimize disruptions, some unanticipated events occurred and the interview was stopped and the patient was given the choice to continue or to terminate the interview. In each instance of interruption, the participant agreed to continue after the interruption and rescheduling of the interviews were not necessary for this study.

Data Analysis

A mixed method approach to data analysis was used for this study. A mixed method analysis approach allows the researcher to get more out of the data, enhance the quality of the data interpretation and generate more meaning from the data (Onwuegbuzie & Teddlie, 2003).

Qualitative Data Analysis. The first step to conducting a qualitative study is to transform the person’s experience into language (Streubert & Carpenter, 1999,

p. 57). Interviews with open ended questions were digitally audio-recorded.

Immediately after the session was completed, the researcher added audio field notes to the digital file. These field notes included a detailed description of the setting where the participant was receiving care as well as non-verbal communication, any disruptions that occurred during the interview and the affect and appearance of the informant. Audio digital files from the interviews and the field notes were transcribed as soon as possible after the interview. Analysis began immediately and continued concurrently throughout subsequent data collection. To achieve an overall sense of the participant's story, the transcript was first read through without coding or analysis. In subsequent readings, initial codes were written in the margins as well as theoretical memos. Initial codes are the researcher's first notes on organizing the data into topics. Theoretical memos are also the researcher's notes and thoughts on what may be happening at that point in the data. The taped interviews were transcribed by the researcher using the voice recognition software, Dragon Naturally Speaking version 7.3.

Transcription took place within 48 hours of conducting the interview. The Atlas TI version 5.2 software program was used to enter and track codes. Subsequent transcripts were analyzed in the same manner and a constant comparative method was used to identify themes of the comfort experience that emerged from the data. Additional interviews were conducted, transcribed and analyzed as described above until redundancy of the data was achieved (Patton, 2002) At this point, no new concepts or ideas related to comfort were identified in the text

data, suggesting that redundancy of the data had occurred. Redundancy refers to the absence of new ideas or concepts in subsequent interview data. That is, identified themes repeated and no new themes emerged from subsequent interviews.

Quantitative Data Analysis. Descriptive data for the sample and comfort scores on the GCQ were entered into SPSS 13 for analysis. Means, medians and ranges were used to describe the sample. Scores on the GCQ were used to categorize participants into high and low comfort based on the mean of the sample. Data collected from the GCQ was quantified and analyzed using a 2X2 grid. Scores from the GCQ were used to stratify the sample into low and high scores for both groups, HH and TH for further analysis.

The mean overall comfort score for each group was reported. Those scoring below the mean were considered low comfort scores and those above the mean as high comfort scores. Similarities and differences in interview responses within groups and between the stratified sample, those who scored high on the GCQ and those who scored low, were examined and reported in Table 8 Chapter 4. For example, those who score low on the comfort scale for the HH and hospital group had their descriptive reports re-analyzed in the context of being a low overall comfort experience. The groups were analyzed individually and common themes within a group were summarized. The two groups were then compared in their descriptors to see if there were similarities between the

groups that would further explain a lower overall report of comfort. The high scoring groups were analyzed similarly.

Threats to Validity. An all-veteran sample was an external validity issue because of the uniqueness of the veteran population. As a group, veterans suffer from higher rates of mental illness such as post traumatic stress disorder (PTSD) and generally suffer from a greater number of co-morbidities than the general population. The veteran population, particularly the older veteran population is significantly male dominated. There are many more male than female veterans. These issues with the veteran population make studies that are conducted with veterans less generalizable to older adults who are not veterans and also less generalizable to the older adult female population because of the male-dominated veteran sample. Selection bias is a consideration because veterans who are very comfortable in their own space may decline to have their space invaded by additional health care personnel such as researchers when the purpose for the visit is not directly related to their health care. This would result in not obtaining quantitative or qualitative information from veterans at home who may have scored very high on the GCQ. Conversely, patients who are very uncomfortable at home because of their illness or for other reasons, may decline to participate because of the burden of dealing with yet another person invading their space. This would result in not obtaining quantitative or qualitative information from veterans at home who may have scored very low on the GCQ.

However, as the study unfolded there were 7 declinations in the TH and no declinations in the HH.

Strategies to Promote Trustworthiness of Findings. Credibility is a component of trustworthiness in the evaluation of qualitative research. There are several strategies a researcher can use to enhance trustworthiness and credibility of the findings; prolonged engagement, persistent observation, triangulation, member checking, peer debriefing, and negative case analysis. Field notes and theoretical memos may also be used to record the researcher's analytical thinking. This helps to ensure the quality and credibility of data by providing an audit trail to substantiate the trustworthiness and enhance the dependability (Lincoln & Guba, 1985).

In this study, several strategies were employed to promote trustworthiness of the data. During the interviews, the researcher, in addition to audiotaping and transcribing the interviews, recorded field notes. Generally, the field notes described the participant's affect, the setting and other impressions of the researcher including any unusual occurrences such as interruptions. Redundancy of the data was ensured by conducting interviews until no new emergent themes are evident.

Immediate member checking was conducted at the conclusion of the interview in the form of summarizing what the patient has said and obtaining verification of what was said. Peer and mentor debriefing and verification was also used to enhance trustworthiness of findings. The data collection and

analysis were reviewed by the researcher's dissertation committee as well as colleagues and faculty from a regularly scheduled qualitative dissertation seminar in order to verify findings and control for researcher bias.

Finally, the researcher was not involved with selecting the comparison group that was hospitalized. Admissions to the acute hospital were reviewed by the HH screener who performed this task daily as part of her job. The screener identified patients who would have otherwise been suitable for HH but lived outside the catchment area or were not admitted to HH because the HH program was closed to admissions. This assured a comparable comparison group of hospital patients, thus enhancing the credibility of the sample selection.

CHAPTER 4

Results

The aims of this study were to, 1) explore and describe patient perceptions of comfort in the home environment and the hospital environment, 2) examine specific issues of comfort using instrument scores to stratify and further analyze high and low self-report of comfort and, 3) to describe and compare what constitutes comfort for patients cared for in Home Hospital (HH) versus the Traditional Hospital (TH). Demographic data were gathered as well as instrument data from the General Comfort Questionnaire (GCQ.) Qualitative data were collected using a semi-structured interview questionnaire designed to explore the contexts of comfort, environmental, physical, psychospiritual and social as well as the types of comfort, relief, ease and transcendence, as theorized by Katherine Kolcaba (Kolcaba, 1991a.). The sample included thirty participants (n=15 HH and n=15 TH.)

Data

Demographic Data. Demographic data points consisted of age, gender, preferred language, ethnic group, living situation, housing situation, type of housing, highest level of education, annual household income and medical diagnosis for that particular episode of care. Admission and discharge dates for the episode of care were also collected. With the exception of one Hispanic male in the hospitalized group, the remainder of the participants were Caucasian. The majority of the participants were male with only one female in each of the groups.

All participants reported their preferred language as English. Age of participants ranged from 59 to 87 years old with a mean of 70 in the HH group and 55 to 91 years old in the TH group with a mean of 72. Demographic data are listed in Table 5. Length of stay in the HH group ranged from 1 to 11 days (one outlier at 11 days), mean of 3.5. The TH group length of stay ranged from 2 to 6 days with a mean of 3.9. Length of stay as well as diagnosis data are listed in Table 6.

Table 5 – Demographic Information

	Home Hospital (HH) (n=15)	Traditional Hospital (TH) (n=15)
Gender (% male)	94	94
Mean Age	70	72
Range	59-87	55-91
SD	9.2	10.7
Living Situation % Living Alone	33.3	33.3
Housing % Own vs Rent	53.3	60
Type of Housing (%)		
Mobile Home	20	20
Apartment	27	13
House	40	60
Other	13	7
Education (%)		
Did not finish high school	46.7	26.7
High School Graduate	26.7	26.7
Some College	13.3	20
College Graduate	13.3	26.7
Household Income (%) (in thousands)		
5-10	6.7	13.3
11-20	53.3	33.3
21-30	20	20
31-40	6.7	26.7
41-50	13.3	0
over 50	0	6.7

Table 6 – Length of Stay and Diagnosis

	Home Hospital (HH) Mean (SD) Range	Traditional Hospital (TH) Mean (SD) Range
Length of Stay (days)	* 3.5 (2.6) 1-11	3.9 (1.1) 2-6
Diagnosis (participant count)		
CHF	4	4
COPD	4	4
CAP	4	4
Cellulitis	3	3

* reflects length of stay only for HH care and does not include time spent in hospital for early discharge HH participants

Comfort Scores. The maximum possible total comfort score on the General Comfort Questionnaire (GCQ) was 168. Total comfort scores for the HH group ranged from 73 to 159. The mean total comfort score for the HH group was 118.8 with a median of 114 and a standard deviation of 25.4. For the hospitalized group, total comfort scores ranged from 109 to 151. The mean total comfort score was 129.7 with a median of 125

Table 7 – Comfort Scores

	Home Hospital (HH) Mean (SD) Range	Traditional Hospital (TH) Mean (SD) Range
Total Comfort	118.8 (25.4) 73-159	129.7 (16) 109-151
<u>Context</u>		
Environmental	38.9 (5.6) 29-47	39.2 (6.1) 29-48
Psychospiritual	28.1 (6.8) 12-37	32.5 (2.9) 29-37
Physical	22.7 (6.7) 12-35	21.7 (6.3) 15-36
Social	24.5 (7.9) 6-36	29.4 (4.4) 20-36
<u>Type</u>		
Relief	38.4 (8.7) 22-49	42.6 (6.2) 32-54
Ease	32.9 (8.3) 18-45	38.8 (3.8) 31-42
Transcendence	43.7 (8.8) 30-59	48 (7.3) 38-58

and a standard deviation of 16. Distribution and statistics are listed in Table 7.

The design of the questions for the GCQ covered the four contexts in which comfort occurs, environmental, psychospiritual, social and physical as well as the types of comfort, relief, ease and transcendence. Total scores as well as scores for each of the contexts of comfort is reported in Table 7.

Qualitative Data. Qualitative data were collected through the interview process using open-ended semi-structured questions. Examples of codes, definitions, and associated text are found in Appendix B.

Older Adult Perceptions of Comfort

Aim one of this study was to explore and describe patient perceptions of comfort in the home environment and the hospital environment. The intent of this aim was to explore older adult perceptions of comfort without the influence of comfort theory. While comfort theory provided a starting point for questions, actual questions were open-ended to allow themes to emerge in this context of comfort that had not been previously studied. The analysis of the qualitative data employed open coding independent of any theory. Overall descriptions of comfort are provided first, followed by an explanations of comfort enhancers and detractors and exemplars of detractors and enhancers from the data.

Descriptions of Comfort. Comfort is highly individualized and state specific. Conditions that are perceived to enhance comfort for some may detract from comfort for others. In this study, several factors emerged as enhancers of comfort or detractors of comfort. Some enhancers of comfort, if perceived as

necessary, were detractors of comfort if absent. This situation did not occur in the reverse, i.e., detractors of comfort, if absent, did not necessarily enhance perceptions of comfort. Some factors were both enhancers or detractors when present; depending on the individual perception of needs (Figure 2 page 82.)

For the HH group, historical issues of comfort entered the participants' stories throughout the interview. Several of the participants treated in the HH model of care had initially began their treatment in the hospital institution and were discharged early to the HH program. Many of the HH participants reflected on detractors of comfort in the recent past with regard to the traditional hospitalization and contrasted that experience with their current experience of being treated at home. The HH participants were able to expand upon and easily articulate their perception of comfort detractors from recent traditional hospitalizations. Conversely, the TH group of patients lacked the experience of the HH alternative with which to compare and contrast their current comfort experience in the institution. All participants were asked to focus on the current time and episode of care. The TH participants were able to focus on the current situation of comfort related to the current episode of care in the institution. Nearly all of the TH participants lived outside of the geographic area for the HH program and, thus, had not been offered the choice of being treated at home for their acute illness. Of the 15 TH participants, 13 were not offered HH because they lived outside of the geographic area or the HH program was at capacity. The only choice for these patients, short of acting against medical advice, was traditional

hospital care. The HH participants chose HH as mode of acute health care delivery, whereas, many of the TH participants did not have the choice of HH.

For both the HH and TH groups, having their needs met was an overarching theme in the interviews. Those who perceived their needs were being met whether at home by the HH staff or by the TH staff were easily able to articulate exemplars of comfort related to needs being met. Conversely, those who perceived their needs were not met, either in the present or during past episodes of acute health care delivery, were also easily able to articulate exemplars of needs not being met. Those who perceived their needs were met during their present episode of care did not perseverate on issues of discomfort, whereas those who did not perceive their needs were met at the present time or at any time in the past, were motivated to give numerous examples of discomfort, all of which related to not having their needs met.

Comfort Enhancers and Detractors. As mentioned previously, themes emerged that were enhancers of comfort and others that were detractors of comfort. Some of the same factors were enhancers and detractors depending upon individual perceptions of comfort. Singular or smaller coding groups were grouped together conceptually to arrive at several major conceptual themes related to comfort enhancers and detractors or both.

Enhancers. Participants in this study described various environmental, physical, social and psychospiritual factors that enhanced their comfort. The HH group of participants mentioned that being home where they could eat what they

liked and make their own choices of when, where and how to do things was important to their comfort.

Both groups also mentioned that caring and concerned attitudes of health care staff were essential to their perceptions of comfort. Perceiving that health care staff were competent, possessing the knowledge and means to help the participant get well, or return to their baseline level of function, also contributed to perceptions of comfort in both groups. For the hospital group, having help at hand was a contributor to comfort. A sense of belonging and being wanted, as opposed to not being wanted or needed by family, friends was a comfort enhancer for both hospitalized and HH participants. Having choices and being in control as well as the convenience of the HH program enhanced comfort for many of the HH participants. Finally, both groups described that being at ease with no worries was an enhancer of comfort.

Detractors. The hospitalized group was able to articulate several detractors of comfort in relation to their current episode of care. These are illustrated in figure 2 page 82. In contrast, the HH group did not offer any detractors of comfort related to being treated at home. As mentioned previously, the HH group most often articulated detractors of comfort related to a recent traditional hospitalization.

The hospital as a strange place and alien environment was expressed as a detractor of comfort as were the hospital routines. As one participant stated, *“The hospital just feels alien to me. The people in the hospital and everything is*

good, it's just a feeling I have, being out of place when I'm there." With regard to hospital routines, one HH participant stated, *"I don't know what's wrong with those people up at the hospital they don't think anything about coming in to weigh you in the middle of the night. I mean I'm going to weigh the same at 3:30 in the morning as I do at 3:30 in the afternoon. Don't get me wrong they're all nice and everything its just they have their job to do and they pick some really weird times to do it."*

Boredom, confinement, limited choices and waiting times for care were also referred to as detractors by the hospitalized group. Restrictions in the form of diet restrictions, activity restrictions and, in general, not being able to do what they wanted to do at the time they wanted to it was a detractor of comfort. As one participant mentioned, *"yeah you can't come and go like you want to you're pinned right here."* Another participant commented, *"they have to follow their orders I mean it's like they think that I can't do anything for myself or make any decision for myself they have to put me on a fluid restriction and that sort of thing."* This participant went on to comment that he was perfectly able to monitor his own fluid intake at home and that he understands how important it is.

Both enhancer and detractor: Depending upon the individual and their perceived needs at the time, some factors were enhancers of comfort for some and a detractor of comfort for others. Several hospitalized participants described the hospital bed as being comfortable and liking the fact that they could adjust it up and down, while HH participants commented that they couldn't wait to get

home from the hospital because there was nothing more comfortable than their own bed at home. This comment was most often made when the HH participants were contrasting memory of a recent hospital stay with being treated at home. Some participants offered that their hospital roommates were a pleasure to be around and provided social interaction which contributed to social comfort. Occasionally, the TH participant encountered a roommate that was a detractor of comfort related to the health care needs of the roommate, i.e., health care staff performing care needs for a roommate that interrupted the participant's rest or meals or because of behavior of the roommate. For example, one hospitalized participant shared, *"well last night I had to move to this room because I was really uncomfortable in that room because the jackass over there was saying 'shut that music off' he didn't like music and they moved me out of there and I missed the programs I wanted to see because I had to turn the TV off early."*

The smoke free environment of the hospital was an enhancer of comfort for those with lung disease who appreciated the filtered air. However, for those patients who smoked, the smoke-free environment was inconvenient and a detractor of comfort. The hospital strictly enforces a smoke free environment inside the hospital.

The timing of the delivery of health care and hospital routines also emerged as a detractor of comfort. In the hospital, numerous health care staff entered the patient's room at all hours of the day and night unannounced. Hospital routines interrupted patients' rest. One participant shared, *"The*

hospital's OK if they put you to sleep but if you're just up there and not getting any sleep medication you don't sleep. Carts are hauling down the hall and they all have square wheels and you could hear them coming thump, thump, thump down the hall. And the lights, I was there about a month ago when my blood pressure dropped and I didn't get a wink of sleep."

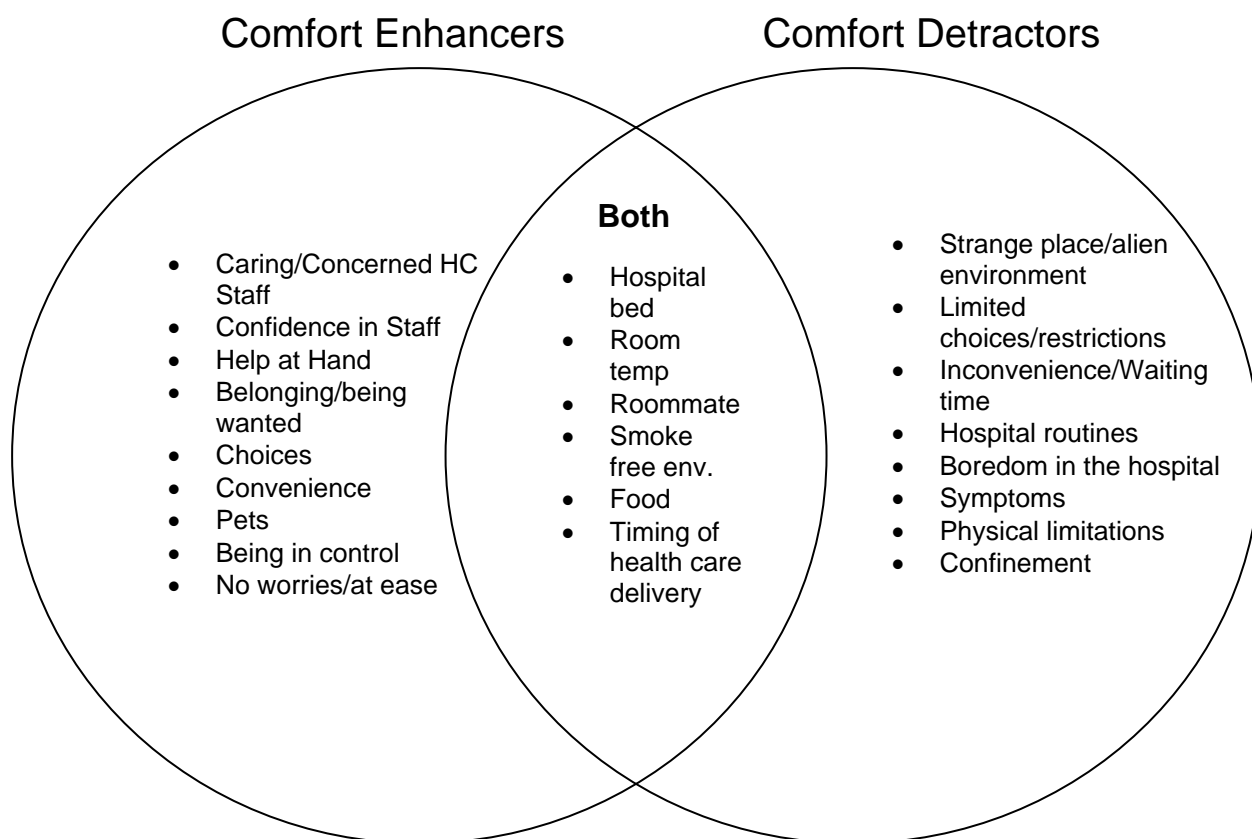
As one HH patient reflected upon a recent hospitalization and contrasted the HH staff's arrival to that of the TH, he said, *"...and they don't just barge into the room like they do in the hospital. I know when they're coming and they knock on the door."* Another HH participant shared about his recent hospital experience, *"And then it always seems like you get the care from them when you don't necessarily want it. It's like the timing is off. And if you need something you push the buzzer and sometimes the bell goes on for five minutes I mean I know they're busy but here if I need help I just yell for my wife and she comes right in."*

Food was also an enhancer for the HH participants who appreciated the fact that they could eat what they wanted when they wanted at home. For the TH participants food was a detractor of comfort due to restricted diets and quality of the hospital food. Later in the analysis, the comfort detractors of hospital rules are coded as "Limited choices/restrictions."

Finally, information was important to both groups' perception of comfort. They relied on the healthcare staff for information about their condition, progress and treatment. When they felt they did not have sufficient information about their health status it was a detractor of comfort. Most often the hospitalized group

referenced information in the context of not getting enough information while the HH group referenced information in the context of how knowledgeable the home care staff were and how they (the participants) felt they had benefited from the expert information. As one home hospital participant mentioned, *“they showed me how this is supposed to work (the oxygen tank) and they gave me information I didn't have. Like for example that I could take all the prednisone all at one time. I was splitting it out through the day but they said no just take it all at one time.”*

Figure 2– Comfort Enhancers and Detractors



Themes of Comfort. In addition to looking at the larger distinction of comfort enhancers and detractors, several themes emerged from the data.

Staff. Health Care staff emerged as a major concept and contributor to perceptions of comfort. Hospital staff that were friendly and acted in a caring and compassionate way were frequently mentioned as a major contributor to comfort for the hospitalized participant as well as the HH participant. Individualized attention from the health care staff was a consistent theme in the HH group. Many of the participants in the HH group mentioned that they felt they received more individualized care with the HH model because, although they thought the hospital staff was excellent (from previous experience with hospitalization,) they perceived that hospital staff had many patients with many demands to meet. Whereas, the HH nurses and physicians were able to give full attention to them when visiting in their home. In the hospital, perceptions that the staff were meeting the participant's needs was important, while needs that were not met by staff caused considerable discomfort as two participants mentioned: "*the first night here I didn't have my CPAP so that was little uncomfortable I didn't sleep very well but now I have it so that's all OK.*" and "*I left home without my eye patch. That makes me uncomfortable when I don't have it so the next day in the hospital I asked one of them if they would just go up the eighth floor to optometry and ask them for an eye patch that I could use and they said they would but they never did.*"

Environment. The environment is an overlay to patient perceptions of comfort and perceptions of other variables that affect comfort. The fit between the patient's perceived needs and the degree to which these needs are perceived by the patient to be met can be conceptualized as the patient's "comfort zone." Not surprisingly, in this study, the environment in which the health care was delivered emerged as another major theme with multiple elements affecting patient perceptions of comfort.

Furniture in the environment was mentioned by many participants as having an effect on comfort. Some hospitalized participants liked the hospital bed while the HH participants mentioned that they preferred their own bed to that of the hospital. The chairs in the hospital were also mentioned as not being as comfortable as chairs at home. Having their own belongings such as appliances and televisions around them was mentioned as an enhancer of comfort for HH participants. Not having these things handy was a remembered detractor of comfort when the HH participants reflected on a previous hospitalization.

Food was another issue that was mentioned frequently by the participants. When asked if there was anything that made them feel uncomfortable in the hospital, a large portion of the hospital group mentioned the hospital food. When the HH group was asked what makes them feel comfortable at home, many commented that they could eat the kind of foods they wanted at home and were unable to do that in the hospital.

Rules, routines and restrictions were mentioned by the hospital group as having a negative affect on comfort. Hospital rules such as visiting hours and pets not being able to visit were bothersome to some participants. Hospital routines like residents rounding early while the patients are sleeping as well as nursing staff waking patients for routine vital signs affected rest and comfort. Restrictions such as fluid restriction and dietary restrictions were also a source of comfort detractors. HH participants also mentioned these issues as they related to a previous hospitalization, however, there was no mention of rules, routines or restrictions being comfort detractors in the HH setting. Participants did mention that knowing when the nurse and doctor were coming to see them as they do in the HH was preferable to the hospital routine where health care personnel enter the patients' rooms frequently and without permission from the patient. As one HH participant put it, *"They don't just barge into the room like they do in the hospital I know when they're coming and they knock on the door."*

Stratifying the Sample

Aim two if this study was to examine specific issues of comfort using instrument scores to stratify and further analyze high and low self-report of comfort. The mean comfort score for participants treated in HH was 118.8 with a standard deviation of 25.4. Those treated in the hospital had a mean of 129.7 with a standard deviation of 16. The sample was stratified and quantitative as well as qualitative information was analyzed for those that scored one standard deviation or greater above or below the mean in each of the groups. For the HH

group, four participants scored one standard deviation or more below the mean and three scored one standard deviation or more above the mean. For the hospital group, three participants scored one standard deviation or more below the mean and five scored one standard deviation or more above the mean (Table 8).

Transcripts from these participants were analyzed from the viewpoint of being a low or high scorer on the GCQ. Data from the high and low comfort scores were extracted and analyzed by the four contexts in which comfort occurs (physical, psychospiritual, social and environmental) as well as the types of comfort (relief, ease and transcendence.) Transcripts of low scorers from both groups were analyzed and compared then transcripts from both groups for high scorers were analyzed and compared. Attention was paid to common themes from the low and high scorers for each group, HH and TH.

Table 8 – Low and High Comfort

	Home Hospital Mean=118.8	Traditional Hospital Mean=129.7
Low Comfort Scores	73, 92, 94, 95	109, 111, 115
High Comfort Scores	147, 153, 159	148, 148, 150, 151, 151

Quantitative results. Four contexts in which comfort occurs have been previously identified; physical (pertaining to bodily sensations), psycho spiritual (pertaining to the internal awareness of self, including esteem, one's relationship to a higher order or being and meaning in life), environmental (pertaining to external

surroundings and influences) and social (pertaining to interpersonal, family and societal relationships) (Kolcaba, 1991a.) In the second dimension there are three types of comfort that can be experienced in each context; relief (the state of the patient when a specific need has been met), ease (the state of calm or contentment) and transcendence (the state in which one rises above the problem or pain.)

Low Scores. Low scores on the GCQ were split into HH and TH groups. The means in each of the context and types of comfort were then analyzed (Table 9.) The low scorer mean for the HH group was lower than the mean for the traditional hospital group for every context and type of comfort with the exception of environmental comfort. In general, on single questions on the GCQ, between the low scorers in the HH and TH group, HH had a lower mean on nearly every singular question. The exceptions to this were wanting to exercise, finding sounds disturbing and having belongings nearby. The HH group did want to exercise, did not find sounds from the environment disturbing and did have their belongings nearby. Finally, among the low scorers, the HH group had a much lower mean on total comfort (88.5) than the TH group (111.7)

When demographic information from both low scoring groups (HH and TH) was examined, the only variable that differed significantly from overall demographic variables was the living situation. Overall demographic information (Table 5) from the HH group as well as the TH group had 33.3% of the sample

living alone. In contrast, when the low scorers were examined, 75% of the sample lived alone.

Interestingly, the HH low comfort scorers did not articulate any comfort detractors related to being treated in the HH model of care. Rather, their overall perceptions of comfort seemed affected by past experiences with acute hospitalizations which were introduced by the participant as a way of explaining why the HH model of care was desirable for them.

High Scores. High comfort scores were analyzed in the same manner. Among the high scorers on the comfort scale, HH participants had higher means in the contexts of environmental, physical and social contexts as well as ease as a type of comfort (Table 9.) In general, on single questions on the GCQ, between the high scorers in the HH and TH group, the HH group scored less pain than the TH, more healthy, less tired, more content and having their belongings around them. HH scored slightly lower than TH on the question of having found meaning in life. Finally among the high comfort scorers, HH scored a higher overall mean (153) for total comfort than TH (149.6.)

A finding in this study that may have influenced the total comfort scores was that there were seven TH patients who met the criteria for this study but who, when approached, declined to be interviewed. In the HH group, there were no declinations. Every HH patient who was approached agreed to participate. It is therefore possible that the HH group included the full range of

Table 9 – Mean Low and High Comfort Scores

	Total Comfort	Contexts of Comfort				Types of Comfort		
		Environment	Psycho- spiritual	Physical	Social	Relief	Ease	Trans- cendence
HH								
Low	88.5	36.5	19.3	16.3	17	27.5	23.8	34.8
High	153	45.7	34.7	30	33	48	44	56.3
TH								
Low	111.7	31.3	29.7	18	28	37.7	31.7	40
High	149.6	44.4	34.8	28.4	32.2	49.2	39.6	56

low and high comfort, whereas, the TH group included only those who were more comfortable while those who were less comfortable declined to be interviewed.

When examining the combined groups HH and TH who were high scorers, eight participants in all (3 HH and 5 TH), 88% lived with others as opposed to living alone.

Qualitative Results. Data from interviews for low and high comfort scorers were re-read with attention to common themes across the low comfort scorers and high comfort scorers. Transcripts from low scorers from HH and TH were read and compared, then transcripts from high scorers were read and compared.

Low Scorers. Impressions of loneliness came out in nearly all of the low scorer transcripts. As mentioned previously, 75% (6/8) of the low scorers lived alone. Of those participants who lived alone, comments were made such as, “nobody comes around anymore” and “I thought about your grandkids (looking at

his brother) and daughter-in-law they never show up, course I don't care if Joe ever shows up, but I sure would like to see those kids more often."

Of the two who did not live alone (1 HH and 1 TH), both of them lived with a spouse. The HH participant also lived with a developmentally disabled daughter. Both of these participants had particularly annoying symptoms. One was being treated for CHF for the HH episode of care but shared that he had also recently been having difficulty with his stomach and described numerous other medical problems in addition to the CHF that caused him to experience uncomfortable symptoms. This participant had concerns about his multiple conditions that made him feel out of control, he commented, *"Well, when so many things are going on with your body you know you feel like you've lost control of the situation and you have no choice. They tell you something's wrong and you have no choice but to take the treatment or go to the hospital or whatever."*

The other participant who did not live alone was a TH participant suffering from CAP. He described symptoms of acute and prolonged coughing spells resulting from his pneumonia as well as having a low blood pressure problem that was causing him to be light-headed when getting out of bed. He was therefore on bed rest with assist to get up to the bathroom and he did not like that. He commented, *"I don't care too much for using a urinal I would rather go to the bathroom. I just like to go to the bathroom to take a leak and be able to wash*

my hands there.” This is also an example of needs, in this case the patient being able to wash his hands, not being met.

In general, the low scorer responses to the question, *“Tell me how comfortable you are feeling right now.”* were positive, but some differentiated between physical and emotional comfort, e.g., *“Physically I’m very comfortable, but emotionally I am in the dumps.”* or were qualified with a temporal component *“Physically I’m feeling much better than I have in quite a while. I don’t have the shortness of breath and I can get around better period. Today’s a good day for me emotionally. I have some good ones and I have some bad ones.”* Nearly all of the low scorer participants qualified their answer to the question of how comfortable they were feeling with a temporal modifier, e.g., *“Right at this moment?, I’m fine.”* or *“pretty darn comfortable right now sitting here, not having any coughing seizures.”*

When asked the question *“What is it that makes you comfortable here?”* the TH participants mentioned the hospital staff who were pleasant and the notion that competent staff were going to help them get well or return to their previous functional level, promoted feelings of comfort. The HH participants, in addition to mentioning that the HH staff were pleasant and competent, articulated that being able to eat their own food and have their own routines was what made them comfortable at home. As was found with the overall HH participants (not only this low scorer group), the HH participants most often contrasted their home

experience with a previous hospital experience in order to better describe what it was that made them comfortable at home.

High Scorers. High scorers were generally optimistic in both groups. All of the high scorer participants were generally cheerful, they didn't let their condition get them down and they had hope for the future. They made comments such as, *"I'm usually a happy-go-lucky person. I don't let things bother me.... like I have this (pointing to the oxygen cannula) and I don't let it get to me, if I let it get to me it makes it worse."* and *"If you don't have hope you've just given up and you can't do that otherwise you will die."*

Family and friends were also important to the high scorers. As mentioned previously, out of seven high scorers, six of them lived with other family members. The one who lived alone was very involved with his car club friends and participated in many road trips and other car club events with them.

In general, the high scorer responses to the question, *"Tell me how comfortable you are feeling right now."* were positive. All of the participants, with the exception of one, answered that they were quite comfortable at that moment. One participant was unable to answer how comfortable he was at the moment and, instead, added a temporal component to explain anticipated future comfort. His response to the question of how comfortable he was at that moment was, *"Well that would be hard. I mean if my situation were worse or worsens or if I have a problem there's somebody right close here to help me out."* This

participant would be comfortable in the future if his condition worsened because he was sure his needs would be met by having immediate help available.

When asked the question *“What is it that makes you comfortable here?”* two of the three HH high scorers remarked that being at home with family was what made them comfortable. The other HH participant again, contrasted the HH care with a recent hospital experience to explain what made him comfortable with the HH care. He commented, *“Well for one thing they don't come and wake you up at night all night taking your blood and taking your vitals and all that stuff.”* Three of the TH participants commented that it was the hospital staff, particularly the nurses that made them comfortable in the hospital. The other TH participant said that sleeping made him comfortable and he had nothing more to add.

Comfort in the Home Hospital Compared to Traditional Hospital Care

Aim three of this study was to describe and compare what constitutes comfort for patients cared for in Home Hospital (HH) versus the Traditional Hospital (TH). As illustrated in Table 7, the mean comfort score in HH was 11 points less than the mean for TH care. In the contexts in which comfort occurs, TH was higher in all contexts with the exception of physical comfort where the HH group mean and the TH group mean were similar (one point difference). On the types of comfort, relief, ease and transcendence, the TH group scored higher means in all types than the HH group.

It would seem that, based upon total comfort scores as well as subscale scores, the TH group was more comfortable than the HH group, however, as

mentioned previously, there may be some selection bias with the TH group that affected overall comfort scores. Further, the narratives of the HH group compared to the TH group does not support a significant difference in perceptions of overall comfort.

Narratives from the HH group reveal that participants were best able to describe their comfort with the HH treatment by contrasting and comparing to historic episodes of care where the participant was treated in a traditional hospital setting. HH participants, on nearly every question about comfort, relied on historic reference rather than current, real-time experience to explain what was uncomfortable in the historic experience compared to what was comfortable in the current HH experience. There was an apparent lack of temporal bounding with regard to comfort issues for the HH group. For purposes of this study, this phenomenon will be termed temporal creep. This did not occur as frequently with the TH group, however, a few participants did compare their current hospital experience with previous hospital experiences in order to explain why the current hospital experience was comfortable for them.

TH participants were easily able to articulate what made them uncomfortable in the hospital for that episode of care. HH participants did not articulate situations or issues that made them uncomfortable with HH care. Some HH participants stated their functional decline made them uncomfortable, such as no longer being able to do the things they once could because of physical limitations.

The HH group said they were comfortable at home. The TH group said they were comfortable in the hospital, however, several of the TH participants qualified their statement with “considering I’m sick, I’m comfortable” or “considering I’m in the hospital, I’m comfortable.” The HH group did not use this qualifier of comfort.

Finally, as previously mentioned, 13 of the 15 TH participants were not given a choice of the HH program as an alternative to the traditional hospital. This was either because they lived outside of the geographic area or because the HH program was at capacity. The last question asked of these participants was, *“If there were an alternative to being in the hospital, for example, you could have doctors and nurses come to your home to treat you instead of being in the hospital, is that something that would interest you?”* Most of the TH group were unable to conceive of how that could be accomplished. They often commented that it would be a nice alternative, but they didn’t see how all of the hospital equipment could be brought into their home. They perceived that the equipment used in the hospital such as vital sign machines and intravenous pumps as well as bar code medication administration equipment was an essential and necessary component of their care. Several of the TH participants also commented that they thought being treated at home would be fine as long as they could get the appropriate level of care at home.

The HH group was asked a final question at the end of the interview of, “Now that you know what being treated in a HH is like, would you choose it

again?" All of the HH participants said they would. A few qualified that with a comment that they would choose to be treated at home again provided their condition was appropriate for HH treatment. However, if their doctor thought they needed to be in the hospital, they would prefer to be in the hospital.

It seems that both groups were happy with their environment of care if they were getting what they perceived to be the appropriate level of care. If they thought they needed to be in the hospital, most were able to transcend minor discomforts and annoyances and comment that, considering they were in the hospital, they were comfortable. All of the HH participants were happy to be receiving care at home and, thus, were where they thought they needed to be and wholly unable to articulate even minor discomforts related the environment of their home as a place of health care delivery.

CHAPTER 5

Discussion and Conclusions

The aims of this study were to 1) explore and describe older adult perceptions of comfort in a home hospital compared to traditional hospital care, 2) examine specific issues of comfort using instrument scores to stratify and further analyze high and low self-report of comfort and, 3) describe and compare what constitutes comfort for patients cared for in home hospital (HH) versus the traditional hospital (TH.) The theoretical perspective for this study was twofold. Comfort as a holistic phenomena and comfort theory (Kolcaba, 1991a.), was one perspective. Person-environment fit as an overlay to comfort was another theoretical perspective in this study (Lawton, 1983). The major concepts important to this study were comfort and environment. The settings in the study were home hospital (HH) and traditional hospital (TH). The environments, HH and TH, and comfort in those environments were the phenomena of interest for this study.

Discussion of Comfort Perceptions

Major Finding

The major finding in this study was that both groups, HH and TH, were comfortable in the environment in which they received health care. The finding that both groups were comfortable in their respective environments was unexpected. It was expected that the HH group would be more comfortable and the TH group would be less comfortable based upon previous studies of HH with

anecdotal comments regarding comfort and preference for HH treatment.

However, in this study both qualitative as well as quantitative data support the finding that both groups were comfortable in their respective environments.

All participants, HH and TH, stated they were comfortable at the time the interview was conducted. The HH participants stated they were more comfortable at home. To qualify the “more comfortable” statement, HH participants compared being treated at home to previous hospitalizations in order to describe what was “more comfortable” at home. The finding that HH participants were wholly unable to describe detractors of comfort in the home setting may represent the type of comfort Kolcaba has identified as *ease*. Ease is defined as a state of calm or contentment (Kolcaba, 1991a.) The HH participants were in the place they thought they should be, at home. Their needs for expert medical and nursing care were being met by visiting nurses and physicians to the home. They seemed at ease in the home environment.

The TH group described their current state of comfort with qualifiers such as *“Considering I’m in the hospital, I’m comfortable.”* or *“Considering I’m sick, I’m pretty comfortable.”* TH participants were able to describe numerous detractors of comfort in the hospital environment while still being able to report that, overall, they were comfortable in the hospital.

This perception from the TH participants may be an example of the *transcendence* type of comfort (Kolcaba, 1991a.). Transcendence is where the person is able to rise above the immediate difficulties and focus attention on a

higher purpose, thus achieving a state of comfort. In this case the TH participants seemed to be able to rise above the minor annoyances and inconvenience of dwelling in the hospital to achieve a higher purpose, that of getting well. By doing so, they were able to achieve a state of comfort and report that, considering where they were (the hospital) and that they were sick, they were comfortable .

Both groups reported they were comfortable at the time they were interviewed. The HH group reported no detractors of comfort in the home environment and seemed to be at ease in their home environment. The TH group reported many detractors of comfort in the hospital environment, however they seemed to be able to transcend those detractors of comfort to report that, overall, they were comfortable.

Conclusion

Both TH and HH were comfortable in the place where they were receiving health care. Despite numerous detractors of comfort in the TH environment, the participants had found comfort. These findings support a previous study that comfort is a basic human need that a person will seek until it is found (Kolcaba, 2003.; Malinowski & Stamler, 2002) These findings may also illustrate two types of comfort that have been previously defined (Kolcaba, 1991a.); ease and transcendence. The HH participants seemed at ease and had found comfort because there were few or no comfort detractors in the home environment while the TH participants seemed able to transcend the minor comfort detractors in the hospital environment to find comfort.

Discussion of Sample Stratification

Quantitative Data

An unexpected finding in this study was that the HH group scored lower overall comfort on the General Comfort Questionnaire (GCQ) when compared to the TH group. The range of total comfort scores on the GCQ for HH was 73-159 with a mean of 118.8 while the range for the TH groups was 109-151 with a mean of 129.7. These scores for overall comfort were incongruent with the qualitative data. Because the qualitative data indicated that the HH group was much more comfortable at home, it was surprising to see the overall mean comfort score for HH substantially lower than the overall mean for the TH group.

One possible explanation for HH scoring lower overall comfort is selection bias in the sample. In the HH group, there were no refusals from participants when asked if they would like to participate in this study on comfort. Therefore, presumably, the full spectrum of less to more comfortable participants were sampled. In the TH group there were seven refusals to participate. It is reasonable to conclude the possibility that only those patients who were comfortable from the TH group agreed to participate and those who were less comfortable declined to participate. This resulted in a skewed sample toward higher comfort scores. The range of comfort scores for both groups supports this hypothesis.

Subscales of Comfort. When the comfort scores were further stratified into the contexts (environmental, psycho spiritual, physical and social) and types of

comfort (relief, ease and transcendence) the HH exhibited lower means than TH on each subscale with one exception, environmental comfort. Among the low scoring participants in each group, HH showed a higher mean on the subscale of environmental comfort (36.5) than the TH group (31.3). Among the high scorers for both groups, the TH and HH participants showed similar means on all of the subscales.

Considering the possibility that selection bias occurred and that the full spectrum of less to more comfortable participants were included in the HH sample but not the TH sample, makes the finding of a higher environmental comfort mean in HH when compared to TH among the low scorers of even greater significance. Assuming sample bias did occur and that the HH sample included the full, naturally occurring spectrum of low to high comfort participants but the TH sample included only high comfort participants (those who were less comfortable refused to participate,) then the stratified sample of low scorers among the TH group is artificially high. When the low scorers were then examined on the subscales, one would expect the TH group to consistently score higher comfort on all the subscales considering the artificially elevated overall comfort scores. This did occur for all of the subscales except environmental comfort. Among the low scorers even in the presence of an artificially high overall comfort score for the TH group, the HH group still scored a higher overall mean in environmental comfort.

Qualitative Data

The finding in this study was that participants who scored highly on the instrument subscale of social comfort matched the narratives in the qualitative data where themes of family and a sense of belonging emerged. The findings from this study support the context of social comfort (Kolcaba, 1991a.).

When stratified, the sample of low and high scorers showed that among the low scorers from each group, TH and HH, there were similarities in social comfort detractors. The fact that a larger proportion of the low scorers lived alone is likely the reason the lower social comfort scores. Among the high scorers of comfort all but one lived with a spouse or significant other. In their narratives, themes of family and a sense of belonging and having someone who cared about them were evident. The participant who lived alone was very active socially in his car club and had many friends with whom he had frequent contact and on whom he could depend for help if he needed it.

Conclusion. Sample selection bias likely influenced the scoring on the GCQ causing the TH scores to be artificially high because the full, naturally occurring, spectrum of low to high comfort was not sampled. However, among the low scorers, comfort on the environmental subscale was much higher for the HH participants than for the TH participants indicating the HH participants were at ease and comfortable receiving health care at home while the TH participants were less comfortable in the hospital environment.

In the stratified sample of low scorers, several of the HH group had a need for social comfort that was not being met due to their social isolation. This may be one reason for scoring lower overall comfort as well as lower comfort on the subscale of social comfort when compared to the TH participants. For the TH group, often their social comfort needs were met in the hospital through interaction with the health care staff and other patients and this may be a reason for scoring higher social as well as overall comfort. For those TH participants who may have been socially isolated at home, the hospital environment afforded many opportunities for social interaction, thus a higher score on the subscale of social comfort.

The home and the hospital are two very different social settings. For some older adults, the hospital setting may meet the need for social interaction that is absent in the older adult's home setting. This may influence the older adult's preference when choosing to be treated at home or in the hospital.

Comfort Literature

In many studies on comfort, descriptions of comfort have emerged as highly subjective and context specific (Arruda & Larson, 1992.; Cameron, 1993.; Hamilton, 1989.; Kolcaba & Kolcaba, 1991.; Kolcaba, 2003.). The same was true for this study. Depending on the individual perceptions of comfort, and perceived needs, enhancers of comfort for some participants were detractors of comfort for others, particularly for the TH group. The HH group was wholly unable to articulate detractors of comfort with regard to their immediate episode of care

and reverted to historical references of comfort detractors experienced with previous hospitalizations. There was lack of temporal bounding in their exemplars of comfort detractors. This temporal creep back to remembrances of recent hospitalizations allowed them to compare and contrast comfort in the home hospital program with experiences from recent hospitalizations. Although many previous studies on comfort have identified that comfort is state specific and that comfort can come or go quickly, this temporal creep with regard to participants' explaining comfort in a particular environment where they are at a loss to identify real time comfort detractors has not been previously identified or discussed in the comfort literature. It is unknown whether the temporal creep detected in the qualitative portion of this study affected the quantitative scores on the GCQ.

Previous studies on comfort have identified that caring and engaged health care staff are important to patient perceptions of comfort, particularly in older patient populations (Kolcaba, 1992a; Tutton & Seers, 2004.). Those findings were the same for this study. Caring and concerned health care staff were one of the most frequently identified enhancers of comfort for both the TH group as well as the HH group. Additionally, because this study involved acute episodes of care, confidence in the health care staff's ability to help the patient return to health also emerged as an important enhancer of comfort.

Unmet needs, loss of control in an institutional setting and rigid hospital routines have been identified in previous studies as detractors of comfort

(Cameron, 1993.; Tutton & Seers, 2004.). For the TH group in this study, hospital routines, confinement to a bed and limited choices, particularly with regard to food, was a comfort detractor for many of the participants. Waiting to have needs met was identified as a detractor of comfort by the HH participants with regard to previous hospitalizations or other previous encounters with the health care system such as emergency room visits or clinic waiting times, but not with the current episode of care. Interestingly, the TH participants did not specifically identify waiting times or a delay in needs being met for their current episode of care, however, they did mention that they perceived the health care staff were busy and that they did not always get the staff's full attention.

The GCQ (Kolcaba, 2003.) and its 28 item shortened version for older frail populations (Kolcaba et al., 2006) seemed to capture the essences of comfort in the types (relief, ease and transcendence) and contexts (environmental, social, psychospiritual and physical) for the TH group. However, the HH group was at a loss to describe detractors of comfort in the above contexts in the home environment, but nevertheless scored lower overall comfort on the instrument. The results on the GCQ were incongruent with the narratives on comfort in the HH setting. The narratives indicated the HH group was very comfortable at home, but the GCQ showed lower overall comfort scores when compared to TH. Selection bias, as discussed earlier may be one explanation for this, however, instrument limitations for the HH group of participants may also explain the lower overall comfort scores in the HH group. The HH group had narratives indicating

they were quite comfortable at home. Therefore, the instrument may have failed to fully capture the comfort in the HH setting. This finding has implications for further study that will be discussed later.

Home Hospital Literature

Because there are no previous studies in the literature that were designed to be specific to comfort in the home hospital setting, findings on attributes of comfort for a HH are unique to this study. The HH group of participants emphasized the fact that they were where they belonged and having family and pets around them as well as being in their own familiar environment were important enhancers of comfort for them. The HH group unanimously agreed that they would choose to be treated at home again if the occasion arose and their level of illness allowed for HH treatment. This finding is congruent with other studies on HH models of care that mention patient satisfaction with the HH (Caplan et al., 1999b; Leff et al., 2005).

Length of stay (LOS) has been a frequently cited outcome variable in previous studies of HH models of care (Caplan et al., 1999b; Cotton et al., 2000; Hernandez et al., 2003; Ioannides-Demos et al., 2001; Leff et al., 1999; Leff et al., 2005). As was true for those studies that compared HH to TH care for LOS, this study demonstrated a slightly shorter mean LOS for HH participants (3.5 days) compared to the TH group (3.9 days.) It should be noted, however, that nine of the HH participants were early discharges from the hospital into HH. All nine of these participants spent one day in the hospital prior to being admitted to

HH. The process of allowing one day in the hospital for HH patients is not uncommon at the Portland VA Medical Center. Due to programmatic constraints in the form of limited hours of operation, patients who qualify for HH are not immediately admitted to HH. Many patients who qualify for HH care intersect the health care system at a time when HH is not available for immediate admission, i.e. late night and early morning hours. This results in the patient being admitted to TH briefly until HH can accommodate the admission. This extra day of care, when added to the total LOS, increases the mean LOS to 4.1 days for the HH group. However, in the HH group there was one outlier with a length of stay of 11 days. When this outlier is removed, the mean LOS in the HH group, including the nine one day stays in the hospital for the early discharges, drops back to 3.5 days compared to a mean of 3.9 for the TH group. The HH group had a slightly lower overall length of stay when the 11 day outlier is removed. The affect of one day in the hospital on perceptions of comfort for those nine patients was not evident in the qualitative or quantitative portion of this study. Those who spent one day in the hospital were equally, but not necessarily more likely to articulate detractors of comfort from the hospital experience in order to explain comfort at home. When quantitative scores were compared on the comfort instrument there were no detectable differences between the participants with a one-day hospital stay and those who had no hospital stay.

Person-Environment Literature

The environment is an overlay to patient perceptions of comfort and perceptions of other variables that affect comfort. The fit between the patient's perceived needs and the degree to which these needs are perceived by the patient to be met can be conceptualized as the patient's "comfort zone" as represented by the competence-press model (Lawton, 1983). Person-environment fit takes into account the overlay of the environment on the patient's perceptions of needs and whether those needs are met.

In this study participants treated in HH as well as TH perceived that their needs were met in both environments and were therefore in a zone of comfort according to the person-environment fit model. There was congruence between perceived needs and having needs met. These participants were where they thought they needed to be and their needs were being met in both environments.

The absence of either one of these elements, being where they thought they needed to be or having their needs met, moved them out of their comfort zone. For example; one participant who received HH care reflected on a previous hospitalization several months in the past and described how he knew that he didn't need to be in the hospital and he kept telling his doctors that, but they would not discharge him, so he left against medical advice. He described that he was just not comfortable being in the hospital at that time because it was not where he thought he should be. A TH participant articulated how when he first arrived at the hospital he was "damned droopy" and he only had energy to sit and

concentrate on breathing. Later, when he was feeling better, he was able to make his needs known to the nursing staff with regard to receiving his inhalers well before his meals so he could eat comfortably. The simple act of meeting that patient's need to have inhalers at least one hour before meals, allowed him to return to his "zone of comfort."

The TH patients were comfortable because they had adapted to the environment of the hospital. Overall, they were comfortable even though they were able to articulate many detractors of comfort in the hospital environment. The HH participants were comfortable because they were already in their preferred environment and thus, at ease.

Limitations of the Study

This study was conducted with a sample that consisted of 100% veteran participants so it is likely not generalizable to other non-veteran populations. In addition, the veteran population, particularly older veterans, is highly gender skewed with many more males than females. That gender imbalance was reflected in this study with only one female in the HH group and one female in the TH group. Therefore, the findings from this study may not be generalizable to a female population.

Sample size in this study was also a limitation to achieving statistically significant information from the GCQ quantitative portion of the study. The sample consisted of 15 HH participants and 15 TH participants, which is

insufficient for statistically significant comparisons of comfort. This, however, presents an opportunity for future studies with a larger group.

As mentioned previously, the sample was likely biased in the TH group because of the high number of declinations, nearly 32%. Seven potential participants in the TH group who met the criteria for inclusion in this study declined to participate. Although one of the participants stated he was too uncomfortable to participate, the others were not explicit in their reason for declining and research protocol did not allow the investigator to approach these patients. It is, however, reasonable to assume that many of them were too uncomfortable for one reason or another to participate. If comfort was a factor, the sample would be biased toward a more comfortable TH group. The HH group presumably sampled the full spectrum of less to more comfortable because there were no declinations in the HH group. This phenomenon has implications with regard to the comparability of the two groups and has been discussed at length previously.

The comfort instrument may have limitations with regard to measuring the factors that affect comfort in a home hospital or hospital population. The qualitative data indicated that whether a person was in the place where they thought they needed to be influenced their perception of comfort. The comfort instrument did not contain questions on the environment subscale that tapped into the question of whether the participant was where they thought they needed to be.

Participants who scored high on the comfort scale were generally more cheerful and optimistic in their narratives. Although it is possible personality played a role in an optimistic outlook, this study did not explore personality types

Nursing Implications

Since the beginnings of modern nursing, comfort has been an important and highly valued outcome of nursing care as well as a process in nursing care (Kolcaba & Kolcaba, 1991.; Kolcaba, 1995.; McIlveen & Morse, 1995) The environment in which nursing care is delivered plays an important role in patient perceptions of comfort, particularly for older adults (Kolcaba, 1992a.)

Furthermore, as revealed in the qualitative portion of this study, individual comfort can be affected by needs or presses that extend beyond the immediate medical or nursing needs of the patient. Patients may be extremely uncomfortable in the hospital and it may have nothing to do with the hospital environment or symptoms of illness, but with a home situation or job responsibilities. To be truly holistic in our approach, nursing must consider the possibility that the patient's discomfort may have nothing to do with the hospital, nurses, physicians or care he/she is receiving. This knowledge then allows nurses to incorporate assessment of needs that go beyond the immediate medical and nursing needs of the patient. The patient who is determined to leave the hospital against the advice of his physician (AMA) may not be just a "difficult patient." There may be needs that go beyond his/her immediate medical need that, by their own perception, is more pressing than the need to be hospitalized.

Findings from this study support the view that comfort is highly individualized and state specific. Additionally, the environment of the hospital inherently exhibits numerous comfort detractors that cannot be mitigated through nursing actions. Also, the findings from this study support the perception that caring, concerned nurses enhance the comfort experience for hospitalized patients.

In this study it is important to know that none of the HH patients reported comfort detractors with being treated at home. Whereas, the TH patients were able to articulate numerous detractors of comfort in the hospital environment. Nevertheless, the TH participants were able to transcend those detractors of comfort in order to achieve an overall state of comfort in the hospital as long as they were where they perceived they needed to be and their needs were met. Although the TH patients were able to achieve an overall state of comfort, it was more difficult for them to do so because of the environmental presses inherent in the hospital environment, i.e., hospital routines, noise, lights, etc.

As a profession, nursing can be comfortable advocating for HH treatment for patients who meet criteria to be treated at home. As revealed in the qualitative portion of this study, patients are more comfortable at home and are thus able to immediately turn their attention and efforts toward getting well. The TH patient must first transcend the comfort detractors commonly found in the hospital environment to achieve a level of comfort that then enables him/her to turn attention to getting well. Removing the intermediary step of transcendence helps

the patient achieve a state of comfort more quickly and thus, achieve wellness and/or return to their baseline more quickly.

Previous studies on the HH model of health care have been driven by the medical model with emphasis on medical outcomes such as complication rates, cost, mortality, morbidity and re-hospitalizations (Campbell, 2001; Caplan et al., 1999b; Cotton et al., 2000; Davies, 2000; Hernandez et al., 2003; Ioannides-Demos et al., 2001). Although there are a few studies of HH that approach patient preference or satisfaction with HH (Caplan et al., 1999b; Fried et al., 1999; Leff et al., 2005; Ojoo, 2002), this is the first study that specifically addresses comfort in a HH model of care. This study provides additional support to the desirability and patient centeredness of the HH model of care. Through policy implementation and political activism, nursing can lend a voice to the HH alternative to traditional hospitalization.

Finally, nursing is a holistic profession concerned with the whole person and not just the immediate medical need. This study further confirms that comfort is a complicated and multi-dimensional state. This suggests that nurses may want to consider the importance of assessment and screening of patients that goes beyond the immediate medical needs, particularly if the patient exhibits behaviors of a “difficult patient.”

Implications for Nursing Research

There are several implications for further nursing research from this study. Patient perceptions of the limits of what is possible for treatment at home, further

testing of the validity of the GCQ in the HH population, exploration into the holistic approach of nursing for assessment of needs beyond the hospital environment and reasons for patient choice of HH versus TH.

Perceptions of What is Possible

One of the last questions asked of the TH participants in this study was “*If there were an alternative to being in the hospital, for example, being treated at home, is this something that would interest you?*” Nearly all of the patients that were asked this question thought treatment at home would not be possible, either because the health care professionals wouldn’t come to their home or because the equipment that was used in the hospital could not be taken into the home or both. These misperceptions that the hospital equipment was necessary to their treatment and that professionals don’t make house calls, are interesting and bear further study around patient understanding of what is possible for health care at home, the role of technology and its influence on patient outcomes and the role of health care professionals.

Admittedly, most of the TH participants lived outside of the catchment area for the HH program, which is why they did not receive the HH program of care even though they met the admission criteria. This means many of them likely lived in rural areas, which may have contributed to their inability to conceive of physicians and nurses coming to their home.

Possible Limits of GCQ

The incongruence with the qualitative data compared to the GCQ in the HH population raises a question of validity of the instrument in this population. The GCQ requires more study and a larger sample size for the HH population to precisely establish the validity of the instrument for HH.

The Holistic Nursing Approach

Research into patient needs that extend beyond the medical issue at hand will allow for development of assessment models and tools for nursing. These tools would enhance the nurse's ability to facilitate holistic patient comfort beyond the immediate medical need. Exploration into why patients leave the hospital setting against medical advice would be a place to start this research.

Choices between HH and TH

Finally, further exploration into patient preference for HH or TH may lend insight into non-medical issues that influence patient choice. For example, some patients may choose TH care over HH care simply to satisfy a social comfort deficit whereas others may choose TH over HH as a substitute for inadequate respite services for their primary caregiver. In both cases, TH care is an expensive solution to issues that might be addressed in other ways. With recent research regarding patient safety and risks of hospitalization (Frels, Williams, Narayanan, & Gariballa, 2002; IOM, 2000) particularly for older adults (Hart, Birkas, Lachmann, & Saunders, 2002; Jacelon, 1999) hospitalization as a means

to satisfy social interaction needs or caregiver respite is a risky as well as expensive solution.

Conclusions

Two theories guided this study: Comfort theory as proposed by Kolcaba (Kolcaba, 1991a.); and the environment as an overlay to perceptions of comfort using Lawton's person-environment fit model (Lawton, 1983). Comfort theory was substructured from the theory of human press as illustrated by Kolcaba (Kolcaba, 2003.). Both comfort theory and person-environment fit have their roots in Murray's theory of human press (Murray, 1938) According to Kolcaba it is necessary to achieve a state of comfort before a person can exhibit health seeking behaviors and participate in their own health care. In person-environment fit, the zone of maximum comfort is achieved when there is congruence between the perceived needs and competence to meet those needs. The environment plays an important role in this interaction between needs and competence in the case of acute illness. If a patient is acutely ill such that they cannot meet their own needs, assistance is required from nurses. Nurses help patients meet their perceived needs to achieve a state of comfort which then allows the patient to participate in his or her own journey to wellness.

In this study, both groups of patients were where they thought they needed to be, they had their needs met and both groups had achieved a state of comfort. The HH participants' needs for health care were met by visiting nurses and physicians and they did not perceive any detractors of comfort in the HH

environment of care. They were at ease in the home environment. The TH group perceived detractors of comfort in the traditional hospital environment. However, because they were where they thought they needed to be and lacked knowledge of or access to an alternative to hospitalization, they were able to transcend the detractors of comfort to report that they were comfortable.

The environment in which health care was delivered influenced patient perceptions of comfort in this study. This was particularly evident for the low comfort scorers where there was a noticeable difference in the means on the subscale of environmental comfort between the HH and TH group. The HH group was more comfortable receiving acute health care in the home environment.

In this study, the HH model of acute care served 6 patients as a complete substitute for traditional hospital care and 9 patients as an early discharge after a one day stay in the traditional hospital. As such, the HH model of care served two purposes; as a substitution for traditional hospital care, it allowed the patient to completely avoid the inherent risks of hospitalization. As an early discharge program it allowed the patient to reduce exposure to the hospital environment and it provided a model of care that transitions the patient from in-patient to outpatient care in a more closely monitored process. There is evidence that older adults may benefit from a more closely monitored discharge process rather than the usual method of discharge from an acute hospital to home with the next follow-up being an outpatient clinic visit (Martin, Oyewole, & Moloney, 1994).

Nursing as a health care profession practices a holistic approach to patient care. Just as the World Health Organization's definition of health; "*a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity*" nursing embraces the whole being and not just the immediate medical or nursing needs of the patient. Further understanding one of the most complex and primary patient outcomes, comfort, is one contribution of this study. Illuminating an innovative approach to the delivery of acute health care in the form of a home hospital and the influence of the environment on perceptions of comfort for older adults is another.

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LIST OF APPENDICES

GENERAL COMFORT QUESTIONNAIRE	146
CODES AND DEFINITIONS	148
CONSENT FORM	153
PATIENT HANDOUT	163
DEMOGRAPHIC FORM	164

Appendix A - GCQ

GENERAL COMFORT QUESTIONNAIRE

Thank you VERY MUCH for helping me in our study of the concept COMFORT. Below are statements that may describe your comfort right now. Six numbers are provided for each question; please circle the number you think most closely matches your feeling. This is about your comfort at the moment you are answering the questions.

	Strongly Disagree					Strongly Agree
1. There are those I can depend on when I need help	1	2	3	4	5	6
2. I don't want to exercise	1	2	3	4	5	6
3. My condition gets me down	1	2	3	4	5	6
4. I feel confident	1	2	3	4	5	6
5. I feel my life is worthwhile right now	1	2	3	4	5	6
6. I am inspired by knowing that I am loved	1	2	3	4	5	6
7. The sounds keep me from resting	1	2	3	4	5	6
8. No one understands me	1	2	3	4	5	6
9. My pain is difficult to endure	1	2	3	4	5	6
10. I am unhappy when I am alone	1	2	3	4	5	6
11. I do not like it here	1	2	3	4	5	6
12. I am constipated right now	1	2	3	4	5	6
13. I do not feel healthy right now	1	2	3	4	5	6
14. My room makes me feel scared	1	2	3	4	5	6

15. I am afraid of what is next	1	2	3	4	5	6
	Strongly Disagree					Strongly Agree
16. I am very tired	1	2	3	4	5	6
17. I am content	1	2	3	4	5	6
18. This chair (bed) makes me hurt	1	2	3	4	5	6
19. The views are soothing	1	2	3	4	5	6
20. My personal belongings are not here	1	2	3	4	5	6
21. I feel out of place here	1	2	3	4	5	6
22. My friends remember me with their cards and phone calls	1	2	3	4	5	6
23. I need to be better informed about my health	1	2	3	4	5	6
24. I don't have many choices	1	2	3	4	5	6
25. This room smells bad	1	2	3	4	5	6
26. I feel peaceful	1	2	3	4	5	6
27. I am depressed	1	2	3	4	5	6
28. I have found meaning in my life	1	2	3	4	5	6

Appendix B – Codes and Definitions

Code	Definition	Examples
Caring/ Concerned HC Staff	attitudes and actions of health care personnel that demonstrate genuine concern and consideration of the individual	It is nice to have people coming here who care what happens to you. And this nurse the same nurse she's getting ready to go home and she said goodbye and then pretty soon she showed up back there with a cheeseburger for me. So it's just that kind of thing, it makes you feel like they care.
Confidence in Staff	trusting the health care personnel to provide accurate diagnosis and treatment that promotes the individual's recovery and health	And I think the nurses do a good job of all of this they're right on top of things you know? They want to do their very best and they're doing their best you know? Well, you come in and they treat you right and they do whatever they can for you as and they come in and check you all over and make sure everything is good. They're just good people. I know they can make me well.
Help at Hand	Immediate assistance.	They give me the very best attention if I need something they help me. They help me get up and go to the bathroom and that's comfort to me. But other than that, the thing that makes you feel comfortable or that makes me feel comfortable is the fact that I know all I have to do is whistle and someone will come and take care of me here.
Belonging/Being wanted	In the place or situation where they feel wanted and/or needed	Well you feel like you're wanted in the hospital if you don't feel like you're wanted you know you get discouraged and I'm not discouraged. I'm where I belong. well, just the fact that I'm not at home. Being in your own surroundings, there's nothing like it. Its where you put your boots so to speak. You have friends coming and going there are always keeping an eye on you because they know you're not that well

Code	Definition	Examples
Choices	The circumstance of being able to choose as in choosing food, what to do and when what is done and when. Being able to get what you want when you want it	But the TV up at the hospital stinks they don't have any choices. I can go to the refrigerator and see what I got and if I don't like it I can go to the store and get something else. You sure can't do that up on the Hill.
Convenience	Health care services and assistance that is readily available with minimal hassle	Staying at home eliminates having to go to the hospital or to doctor's office or to see the nurse for treatment or what ever if they come here instead of me having to go there that's a lot better for me. I don't drive I use public transportation. You know it can take the almost two hours to get from here to the hospital depending on what day it is. Well, it's easier for me instead of going up to the hospital. They're right here and I get my questions answered I get what I need right away instead of having to call up to the hospital and wait for somebody to call me back.
Pets	Pets as a source of comfort and family	I feel comfortable with my little puppy, I love her and she loves me. It makes me very comfortable. And having the dog here she usually lays right here. Sometimes she gets up on the sofa and lays there but most often she lays right here by me.
Being in control	The ability to make their own choices and determine what will be done to them and when. To get what they want and go where they want when they want.	I don't have people bothering me all the time. It's more comfortable being here I know where everything is at. If I want to sit in my recliner or go to bed I can do that.

Code	Definition	Examples
No worries/at ease	Relaxed/no worries	Well you can just relax and not have to worry about the outside noise bothering you or anything I don't know I just like it much better Everything is OK there is no strain or pulling of the mind... no worries. And if somebody would just give us a little bit more money we would be better off yet.
Hospital bed	the bed as an issue of comfort may be comfortable or uncomfortable	The bed is comfortable I can adjust it up-and-down how I want it, I'm about as comfortable as you can get. Yeah these hospital beds serve a useful purpose but they're not like my queen-size bed at home.
Roommate	Mention of a roommate as having influence on the individual's comfort	Here a while back I was in there and I really enjoyed my roommate he was 93 years old and he had a very sharp mind. I was really uncomfortable in that room because the jackass over there was saying "shut that music off" he didn't like music and they moved me out of there and I missed the programs wanted to see because I had to turn the TV offer early.
Smoke Free Environment	Mention of smoking or absence of smoke in the environment	Well my wife and I both smoke but we don't smoke in the house. So, in the hospital it drove me nuts because you can't smoke there. The air in here is filtered and I feel better as soon as I get here.
Food	Taste and quality of food as it relates to comfort. May be negative or positive. Usually in the context of food being bad in the hospital but good at home.	And the hospital food is bad. They served powdered eggs and they put the toast on top of it and when you get it its all a soggy. One day I think was on a Saturday I was joking about wanting to hamburger or cheeseburger because the

Code	Definition	Examples
		<p>food is so bad up there.</p> <p>Well that and I'm in my own gourmet cook, I cook all the meals. You know the food here isn't anything to write home to Mom about. It's not bad as hospital food goes it's as bad as hospital food is.</p>
Timing of health care delivery	Having to wait for health care services or to have health care needs met or receiving health care on the patient's schedule	<p>And I know the nurses coming in the morning she comes in and does all the things she needs to do and then she's gone.</p> <p>The benefit is that they come when they say they're coming and I know they're coming. They don't show up at 330 in the morning to do their job they come here they do their job and then they go. That's the way it should be.</p>
Strange place/alien environment	The hospital environment as a comfort detractor	The hospital just feels alien to me. The people in the hospital and everything is good and it's just a feeling I have, being out of place when I'm there.
Limited choices/Restrictions	The circumstance of being able to choose as in choosing food, what to do and what is done and when. Also, the lack of choices.	<p>Just the amenities of being at home you have your things right with you, you know where everything is, you can get what you want when you want it.</p> <p>So when you go to the hospital if you're pretty much confined to one little room but here home I can go where one at oh I can go to different room and I can do things here that I can't do the hospital.</p>
Inconvenience/Waiting Time	Access to health care that requires extra effort such as distance to travel and parking	<p>Well you know parking is a problem here.</p> <p>Well one of the things is we don't have to inconvenience my daughter to take me to the hospital,</p>

Code	Definition	Examples
		When I go over to the hospital or to an appointment it can be six hours or so and then I come back and I'm exhausted but being at home they come to me and that's a good thing.
Hospital Routines	Rigid hospital routines that interrupt sleep and prevent the person from doing what he or she wishes to do at the time they wish to do it	Hospital's are institutions you know. I don't like to the routine the scheduling and the inconvenience. With all the nurses coming in all the time in saying I want to take your blood pressure and give you a poke and check your blood sugar again. You know that would drive me to frustration it's better right here.
Boredom	The experience of only being able to lie in bed or walk around the hospital	Of course I do a lot of sleeping up there at the hospital because there wasn't anything else to do. One thing is the confinement is a pain in the butt. I've always been active all my life although I don't have the stamina that I would like to have to do all of the walking, running and exercising that I'd like to do I still prefer to move around more you know and I'm not able to because I'm hooked up to this business you know

Appendix C – Consent Form



Department of Veterans
Affairs

VA Informed Consent Form

Page 153 of 164

Subject Name: _____ Date: _____

Title of Study: Older Adult Perceptions of Comfort in a Home Hospital Compared to Traditional Hospital Care

Principal Investigator: Nancy Benton, RN, Ph.D (c)

VAMC: 648 – Portland, OR

KEY STUDY STAFF:

Nancy Benton, RN, Ph.D (c) – 503 273-7267 –
Principal Investigator

Heather Young, RN, GNP, Ph.D – 541 552-

6055 – Co-investigator

Scott Mader, MD – 503 220-8262 X 33380 –

Co-investigator

CONFLICT OF INTEREST

No conflicts of interest exist for the study Principal Investigator or co-investigators

PURPOSE:

This study involves research. You have been invited to be in this research study because you are being treated for one of four targeted medical diagnoses that is/may be appropriate for treatment in a home hospital model of care and you are receiving medical and nursing care for this condition either at home or in the hospital.

The purpose(s) of this research study is to learn more about perceptions of comfort in a home hospital model compared to perceptions of comfort in a traditional hospital.

Approximately 30 individuals will recruited for this research study from the Portland VA Medical Center.

If you agree to join and do not withdraw from the study before all procedures are complete, your participation in this study will last for the time it takes to complete an interview lasting approximately 60 minutes and fill out a survey.

DESCRIPTION OF STUDY PROCEDURES:

You will be invited to answer verbal questions asked by the researcher and to complete a written questionnaire. The time it will take to participate and answer the questions is approximately 60 minutes. The interview will be tape recorded. At the conclusion of the interview and questionnaire, the researcher will verify your answers with you. At the end of the interview session, your participation in this study will be completed. There will be no further contact or requirements for participation in this study beyond this initial interview.

Following the interview, the tape will be transcribed for analysis. Your name will not be associated with the written transcript. When the study is completed, the tapes will be destroyed.

The questions you will be asked and the survey instrument that you are asked to complete are done for research purposes.

RISKS and DISCOMFORTS of PARTICIPATION:

You will be asked questions about your perceptions and feelings on comfort. Reflecting on these questions and answering them may cause you to feel anxious or uneasy. You may decline to answer any question if you do not feel comfortable answering the question.

BENEFITS of PARTICIPATION:

There is no direct benefit to you for participating in this study. Some people find it helpful to discuss their experiences with health care. You will be providing information on perceptions of comfort in the health care environment that will be used for educational purposes for health care professionals to help them better understand what factors influence perceptions of comfort.

ALTERNATIVES:

You may choose not to be in this study. You may ask to end the interview at any point during the interview.

CONFIDENTIALITY of RESEARCH RECORDS:

How confidentiality will be maintained. Your information used for this study will be kept confidential as required by law. Your name or identity will not be used in any published reports about this study.

When your information is given to other researchers working with this study, your information will be labeled with a unique code.

Your identity will not be disclosed unless you give specific, separate consent to this or if it is required by the law. The law requires us to keep study records for six years following the end of the study.

Audiotapes of the interview will be coded with your unique identifying case number and only first names will be used during the interview. If identifiable information is inadvertently recorded, it will be deleted during the transcription process.

Mandatory reporting of suspected child or elder abuse. Under Oregon Law, suspected child or elder abuse must be reported to appropriate authorities.

Others who will have access to your information. Others who will have access to your information for this research project are the Portland VA Medical Center Institutional Review Board (the committee that oversees human research) and authorized VA personnel and other federal agencies, such as the FDA, the Office for Human Research Protections (OHRP), and the Government Accounting Office (GAO), in order to meet VA and other Federal or local regulations.

Neither your name nor your identity will be used for publication or publicity purposes.

COSTS:

Veteran participants. A Veteran participant will not be required to pay for care and services (treatment) received as a subject in a VA research project. VA patients must be eligible for VA services. However, some veterans are required to pay co-payments for medical care and services provided by VA. These co-payment requirements will continue to apply to medical care and services provided by VA that are not part of this study (e.g. normal hospital and prescription expenses, which are not part of the research study).

PAYMENT for PARTICIPATION

Since there is no direct benefit to you for participating in this study, you will receive a \$25 gift certificate to Fred Meyer in appreciation of your time. You will receive the gift card upon completion of the interview and the written survey. If you agree to participate but are unable to complete the interview, you will still

receive the gift card. You will be handed the gift card when the interview is over or the gift card will be mailed to your home, whichever you choose.

LIABILITY:

Research Related Injuries. There is no reason to believe that any injury from this study is possible. Every reasonable effort to prevent any injury that could result from this study will be taken. In the event of physical injuries resulting from the study the VA will provide necessary medical treatment (not just emergency care) to a research subject injured by participation in a research project. You will be treated for the injury at no cost to you. This requirement does not apply to treatment for injuries that result from non-compliance by a research subject with study procedures. For eligible veterans, compensation damages may be payable under 38 United States Code 1151. For all study participants, compensation damages resulting from the negligence of federal government employees may be available in accordance with the provisions of the Federal Tort Claims Act. For additional information concerning claims for damages, you may contact VA Regional Counsel at (503) 326-2441. You have not waived any legal rights or released the hospital or its agents from liability for negligence by signing this form.

Whom to contact in the event of a research-related injury to the subject: If you believe that you may have suffered a research related injury, contact: Nancy Benton at 503 273-7267. Nancy Benton will give you further instructions

In the event of a life- threatening emergency, call 911, or in an emergency situation, present yourself to the Emergency Care Unit (ECU).

PARTICIPATION:

Questions about research or about your rights as a subject. Nancy Benton, RN, Ph.D(c) at 503 273-7267 has offered to answer any questions you may have about this research study. If you have any questions regarding your rights as a research subject, you may contact the Portland VA Medical Center Research Service at (503) 273-5122.

Participation is voluntary. Your participation in this research study is voluntary. The authorization to use your protected health information is also voluntary. You may refuse to sign this informed consent form and authorization. However, in order to participate in this study you must sign the informed consent form and authorization. The authorization is attached to the back of this informed consent form.

Your rights if you do not participate. You do not have to join this or any research study. If you do join, and later change your mind, you may quit at any

time. If you refuse to join or withdraw at any time from the study, there will be no penalty or loss of any benefits to which you are otherwise entitled. This will not affect your relationship with or treatment with the Veterans Health Administration. You will still receive all the medical care and benefits for which you are otherwise eligible. This will not affect your rights as a VHA patient.

The Principal Investigator may terminate the interview if, at any time, she believes you are experiencing worsening symptoms of your disease or fatigue such that continuing the interview would be detrimental to you.

Your right to withdraw. You may withdraw from this study at any time without prejudice to yourself or to any future medical care with this institution or with the Department of Veterans Affairs (DVA).

Signature of Informed Consent Form

Your signature below indicates that you have read, or had read to you, all of the above.

Nancy Benton, RN, Ph.D(c) has explained the study to you and answered all of your questions. You have been told of the risks and/or discomforts and possible benefits of the study.

You understand that you do not have to take part in this study. You understand that your refusal to participate will involve no penalty or loss of VA or other benefits to which you are entitled.

In case there are questions, you have been told you can call Nancy Benton at 503 273-7267 during the day and after hours.

Printed Name of Subject or
Subject's Legally Authorized Representative

Signature of Subject

Date

Time

Printed Name of Witness
Subject/Position Title

Relationship to

Signature of Witness

Signature of Investigator or Investigator Representative: "I conducted the informed consent process with this Subject."

If the Investigator did not sign above: "I have reviewed this consent form and attest to the integrity of this informed consent process." Investigator Initials: _____

*Initial of patient or patient representative. "I have received a copy of this informed consent/authorization document": _____

Authorization for the Use and Disclosure of Protected Health Information for

Research Purposes

Health Insurance Portability and Accountability Act (HIPAA)

The Health Insurance Portability and Accountability Act (HIPAA) of 1996 requires that the research team obtain your permission to use health information that is linked to you, called “protected health information.” This section of this form is about what type of information will be collected for this research study and describes what that information will be used for. It also explains how your information will be kept confidential.

During this research study some of your personal information, including health information, will be collected by VA research personnel and used for the scientific goals of the research study.

Authorization to use your protected health information. By signing this document you will authorize the Veterans Health Administration (VHA) to provide Nancy Benton, RN, Ph.D(c) and her research team access to your protected health information. Protected health information is any health information through which you can be identified. This information may be collected, created, used and disclosed in this research study.

Protected health information is any health information which is linked to information identifying you. The identifiers that will be used in this research study include your name, birthdate, address and phone number. These identifiers may be used to obtain information about you or your health from VA records and from the health information categories below. The specific health information that will be accessed and the purpose of each use and disclosure are noted in the following two tables:

Health Information

<input type="checkbox"/>	Complete Medical Records:
<input type="checkbox"/>	History and Physical Exam:
<input type="checkbox"/>	Consultation Reports:
<input type="checkbox"/>	X-ray Reports:
<input type="checkbox"/>	Laboratory tests:
<input type="checkbox"/>	Operative Reports:
<input type="checkbox"/>	Discharge Summary:
<input type="checkbox"/>	Progress Notes:
X Questionnaires, interview results, focus group survey, psychology survey, psychological performance tests: a, d	

X Photographs, videotapes, audiotapes or digital or other images: a, d
<input type="checkbox"/> Tissue and/or blood specimens:
<input type="checkbox"/> Other:

Purpose

a. To learn more about the condition/disease being studied
b. To learn more about the costs of treating the condition/disease being studied
c. To improve health care for persons with the condition/disease being studied
d. To analyze research results
e. To facilitate treatment, payment and operations related to the study
f. To complete research obligations in this study
g. To comply with federal or other governmental agency regulations
h. To monitor for adverse events/side effects
i. To determine the safety and effectiveness of the treatment(s)
j. To perform quality assessments related to research at the VHA
k. To place in a repository or "bank" for future research purposes
l. Other:

The information disclosed may include information relating to:

- ☐ Acquired immunodeficiency syndrome (AIDS) or human immunodeficiency virus (HIV) infection
- ☐ Treatment for drug or alcohol abuse
- ☐ Mental or behavioral health or psychiatric care
- ☐ Sickle cell anemia
- ☐ Genetic testing
- X None of the above

How confidentiality will be maintained.

Your information used for this study will be kept confidential as required by law. The results of your participation in this study may be used for publication or for scientific purposes, but the results will not include any information that could identify you. Your identity will not be disclosed unless you give specific, separate consent to this or if it is required by the law. The law requires us to keep study records for six years following the end of the study.

Access to Research Data.

During this research study, you will not have access to the research data that are collected about you. After the study is complete and the study results are determined or published, you may request your health information.

Others who will have access to your information. Others who will have access to your information for this research project are the Portland VA Medical Center Institutional Review Board (the committee that oversees human research) and authorized VA personnel and other federal agencies, such as the Food and Drug Administration, the Office for Human Research Protections (OHRP), and the Government Accounting Office (GAO), in order to meet VA and other Federal or local regulations.

Limited time for use of personal health information. You are giving the research team permission to use your personal health information only until the end of this study which is anticipated to be July of 2007. At that point, the investigator will remove the identifiers from your information, making it impossible to link you to the study.

Withdrawing your authorization to use personal health information. You can withdraw permission to use your personal health information for research purposes at any time. To withdraw your permission, you must write to Nancy Benton at Portland VA Medical Center – P3Q&P at 3710 SW US Veterans Hospital Rd. Portland, OR.97239 or you can ask a member of the research team to give you a form to withdraw your authorization. If you withdraw your authorization, you may not be able to continue to participate in the study. You will still receive all the medical care and benefits for which you are otherwise eligible. This will not affect your rights as a VHA patient.

Use of personal health information if you withdraw your authorization. If you do send a letter to the Principal Investigator to withdraw this authorization, the use and disclosure of your protected health information will stop as of the date he/she receives your request. However, the Principal Investigator is allowed to use information collected before the date of the letter or collected in good faith before your letter arrives. If your information has already been combined with other peoples' information in the study, such as when numbers are averaged they will continue to use it but no further information about you will be collected after you withdraw the authorization.

Questions about revoking authorization. If you have any questions concerning withdrawing your authorization to use your protected health information, you may contact the Principal Investigator, Nancy Benton at 503 273-7267

Possibility of disclosure and Notice of Privacy Practices. The VHA complies with the requirements of the Health Insurance Portability and Accountability Act of 1996 and its privacy regulations and all other applicable laws that protect your privacy. We will protect your information according to these laws. Despite these protections, there is a possibility that your information could be used or disclosed in a way that it may no longer be protected. Our Notice of Privacy Practices (a separate document) provides more information on how we protect your information. If you do not have a copy of the Notice, the research team will provide one to you.

Your signature below indicates that you have read this authorization form and have been given the opportunity to ask questions. If you have questions later, you understand that you can Nancy Benton at 503 273-7267. You will be given a signed copy of this authorization form for your records. You authorize the use of my identifiable information as described in this form. You understand how your protected health information will be used and disclosed. You authorize the use of your identifiable information as described in this form.

Printed name of Research Subject

Social Security Number of Subject

Signature of Subject

Date

Are you comfortable?

Volunteers are needed for a research study on comfort. Results from the study will help us understand patient perceptions of comfort in the health care environment.

The study involves an interview with the researcher and answering some questions. The interview will be tape recorded and transcribed. Your participation will take approximately 60 minutes. If you are interested in participating please tell your nurse and he/she will tell the researcher who will then visit you and explain the study further.

This study is for research purposes only and there is no potential benefit to you for participating in this study.

You will receive a \$25 gift certificate to Fred Meyer for your time if you decide to participate in the study.

Nancy Benton, RN, PhD(c)
Principal Investigator
Portland VA Medical Center
3710 SW US Veterans Hospital Rd.
Portland, OR.97239
503 273-7267

Appendix E – Demographic Form

Participant

Code:
Demographic Form

Date: _____

Age: _____

Gender: _____

Preferred language: _____

Ethnic group: _____

Living situation (circle one): Live alone Live with others

Housing situation (circle one): Rent Own

Type of housing (circle one): Mobile Home Apartment House
Other

Highest level of education (circle one): Did not High Some
College Finish School College
Grad High School Grad

Annual Household Income: \$5,000-\$10,000 \$11,000-\$20,000
\$21,000-\$30,000
(circle one) \$31,000-\$40,000 \$41,000-\$50,000 over
\$50,000

Medical diagnosis: _____