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# Relationship Between Job Satisfaction and Nurse to Patient Ratio with Nurse Burnout

Kayla Teeter  
*Gardner-Webb University*

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Relationship Between Job Satisfaction  
and Nurse to Patient Ratio with Nurse Burnout

by

Kayla Teeter

A thesis submitted to the faculty of  
Gardner-Webb University School of Nursing  
in partial fulfillment of the requirements for the  
Master of Science in Nursing Degree

Boiling Springs, North Carolina

2014

Submitted by:

Approved by:

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Kayla B. Teeter, BSN, RN

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Anna S. Hamrick, DNP, FNP-C, ACHPN

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Date

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Date

## Abstract

There is evidence that the increase in patients per nurse ratio and job dissatisfaction are leading causes of nurse burnout in the United States; however, current research mostly focuses on the hospital setting which limits the generalization of the findings. Therefore, more research is needed beyond the hospital environment. The purpose of this MSN thesis was to examine the relationship between job satisfaction and nurse-patient ratio with nurse burnout among home health nurses. The hypothesis is that home health nurses who experience a higher nurse to patient ratio and greater job dissatisfaction will experience increased nurse burnout. A review of literature helped to gain an appreciation for the current research that has been conducted in this area of interest, and also revealed the need for further research in the home health setting. This study utilized convenience sampling and a descriptive correlational design among a group of home health nurses in the Piedmont Region of North Carolina. Results from the MJS survey and nurse-patient ratio were analyzed with the results from the Maslach Burnout Inventory-Human Services Survey (MBI-HSS) to determine if a relationship exists. The results revealed that some of the Measure of Job Satisfaction (MJS) subscales appeared to be better predictors of overall job satisfaction, and there does appear to be a positive association between nurse-patient ratio and job satisfaction. In regards to nurse burnout, only one out of the 10 subjects showed results that suggested high nurse burnout. Because a conclusive relationship is unable to be established between neither nurse-patient ratio, nor job satisfaction nor between nurse-patient ratio and nurse burnout, neither can a conclusive relationship be established between job satisfaction and nurse burnout. Areas of improvement in this type of research have been reviewed to further the knowledge available to those who will conduct research in the future on this imperative issue.

*Keywords:* Burnout, job satisfaction, nurse-patient ratio, home health

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## **CHAPTER I**

### **Introduction**

#### **Background**

There is evidence that the increase in patients per nurse ratio and job dissatisfaction, are leading causes of nurse burnout in the United States. The term burnout was first identified in 1974, and was used to describe reactions of workers to chronic stress common in occupations involving frequent direct interactions with people (Jennings, 2008). Jennings adds that burnout is typically conceptualized as a syndrome characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment. Results from a recent survey of 19,657 nurses found that the nurse to patient ratio for hospital nurses is 5.1, home health is 5.4, and nursing homes is 12.8 (Neff, Cimiotti, Heusinger, & Aiken, 2011). The burnout rate reported was 33.8 for the hospital setting, 24.0 for home health, and 27.7 for nursing homes; nurses in hospitals and nursing homes were also found to be more dissatisfied with their job than home health nurses (Neff et al., 2011). Furthermore, home health care agencies are expected to provide high quality care and minimize health care costs. These home health nurses have to fulfill the multiple roles they are expected to play, and this creates stressful situations when the time for patient care is limited. Because home health nurses must move from one client's home to another and provide care within tight schedules, they might frequently feel they have a shortage of time for care. Shortages of time has the potential to cause nurses to perceive time pressure and become exhausted and dissatisfied with the care they provide. This eventually turns into burnout (Jennings, 2008).

## **Problem Statement**

Studies have shown that as nurse-patient ratios increase, so does emotional exhaustion, depersonalization, job dissatisfaction, and eventually burnout. Despite the growing body of evidence that increased nurse-patient ratios are related to decreased patient and nurse outcomes, increased mortality and morbidity among patients, increased emotional exhaustion, and dissatisfaction among nurses, there seems to be an unwillingness to accept these links because of the cost and workforce implications (Sheward, Hunt, Hagen, Macleod, & Ball, 2005). Furthermore, current research focuses on the effects of nurse-patient ratio in the hospital setting which limits the research findings from being generalized outside of the hospital setting. There is a lot of research available on nurse burnout in the hospital setting, but there is limited research in the home health setting. Because of the limited research that has targeted home health nurses, no evidence is available on the causes of nurse burnout and the effectiveness of interventions to prevent nurse burnout for nurses in this particular setting. Therefore, there needs to be more research on the relationship between job satisfaction and nurse to patient ratio with nurse burnout in the home health setting.

## **Significance**

The importance of burnout as a research issue has been driven to some extent by perceptions that it has consequences for the personal well-being of human service providers, their job performance, and the well-being of their service recipients. Each additional patient per nurse was associated with a 23% increase in the odds of burnout and a 15% increase in the odds of job dissatisfaction (Aiken, Clarke, Sloane, Scohalski, & Silber, 2002). According to the *Journal of Nursing Administration*, job satisfaction has

both direct and indirect effects on burnout which confirms that job satisfaction is a significant predictor of burnout (Kalliath & Morris, 2002). The impact of burnout on service providers' mood and their social behaviors has direct implications for their capacity to maintain the therapeutic relationship which provides the basis of much human service work (Maslach, Jackson, & Leiter, 1996). A study conducted on over 95,000 nurses found that the nurses' assessments of the overall quality of their work environments were significantly associated with burnout and job satisfaction (McHugh, Kutney-Lee, Cimiotti, Sloane, & Aiken, 2011). This study compared results among nurses who provide direct care for patients versus nurses who provide care in other settings, such as the pharmaceutical industry. It found that 24% of hospital staff nurses were dissatisfied with their jobs, compared to only 7% of nurses in nonclinical pharmaceutical jobs; and, 34% of hospital staff nurses reported being burned out, compared to 16% of nurses in nonclinical pharmaceutical jobs (McHugh et al., 2011). Survey research has identified a strong and consistent relationship of emotional exhaustion with service providers' self-reports of a range of physical symptoms, such as headaches and sleep disturbances (Maslach et al., 1996). Nurses who characterized their units as having adequate staff, good administrative support for nursing care, and good relations between doctors and nurses reported significantly lower burnout (Vahey, Aiken, Sloane, Clarke, & Bargas, 2004). Not only does nurse burnout affect nurses, but it also has an impact on patient satisfaction. Patient satisfaction has been shown to be lower in institutions where nurses feel burned out and dissatisfied with their work conditions. The percentage of patients who would definitely recommend the hospital to other people

decreased by about 2% for every 10% of nurses at the hospital reporting dissatisfaction with their job (McHugh et al., 2011).

Amid a continuing nursing shortage, retaining nurses has become an important issue for many health care organizations in the United States and other parts of the world (Oulton, 2006). The nursing shortage in the United States could grow to more than one million nurses by 2020 (American Association of Colleges of Nursing [AACN], 2011). Among all health care settings, home health care agencies are projected to be the most strongly affected by the nursing shortage (Carter, 2009). There have been many recent studies looking at stress and burnout, but most research has focused on the acute care setting (Jennings, 2008). Since the majority of research is focused on the acute care setting, it cannot be determined that the same factors are also contributors to burnout in the home health setting. Jennings states, “Once work stress is examined from a more solid theoretical and conceptual basis, then intervention studies can be initiated to assess the most useful ways to lessen work stress” (Jennings, 2008, p.7). Before interventions can be initiated to lessen work stress and burnout, it is crucial to determine the causes and relationships of this burnout.

### **Purpose**

The purpose of this MSN thesis was to examine the relationship between job satisfaction and nurse-patient ratio with nurse burnout among home health nurses. It is clear that these two factors play a role in nurse burnout among nurses in a hospital setting; however, it is not evident whether these areas affect nurse burnout in a different setting. This study will determine if nurse-patient ratio and job satisfaction affect nurse burnout.

## **Thesis Questions and Hypothesis**

The hypothesis is that home health nurses who experience a higher nurse to patient ratio and greater job dissatisfaction, as measured by the Measure of Job Satisfaction, will experience increased nurse burnout, as measured by the Maslach Burnout Inventory-Human Services Survey (MBI-HSS). The following research questions were considered for this study: Are job satisfaction and nurse-patient ratio contributing factors to nurse burnout? Is there a correlation of job satisfaction, nurse-patient ratio, and nurse burnout in home health nurses?

## **Theoretical Framework**

Imogene King's conceptual system and theory of goal attainment and transactional process will be used to explore this research problem. King first published her conceptual framework in 1971 and further developed it into the theory of goal attainment in 1981 (Johnson & Webber, 2001). Her conceptual system and theory contain many concepts, assumptions, and relationships. According to King (1999), "The personal system represents each person as a whole system, interacting with two or more individuals in various interpersonal systems within social systems...These three types of systems represent organized wholes in constant interaction in one's environment" (p.292). The Theory of Goal Attainment has several assumptions relating to individuals, nurse-client interactions, and nursing (McEwen & Wills, 2011). According to this theory, nursing is a process of action, reaction, and interaction whereby nurse and client share information about their perceptions in the nursing situation (McEwen & Wills, 2011). "Regarding nurse-client interactions, King believed that (1) perceptions of the nurse and client influence the interaction process; (2) goals, needs, and values of the nurse and

client influence the interaction process; (3) individuals have a right to knowledge about themselves; (4) individuals have a right to participate in decisions that influence their lives, health, and community services; (5) individuals have a right to accept or reject care; and (6) goals of health professionals and goals of recipients of health care may not be congruent" (McEwen & Wills, 2011, p. 163). The nurse and client relationship influences the interaction process which causes transactions. According to King, transactions represent the evaluation component of human interactions and involve bargaining, negotiating, and social exchange (Cooper & Buckner, 2005). These interactions can lead to transactions, but stress in the nurse to client interactions will occur if role conflict is present (McEwen & Wills, 2011). Positive perceptions of interactions aid transactions, thus increasing the opportunity for mutual goal attainment; when transactions occur between nurses and clients, goals are attained (Cooper & Buckner, 2005). King's theoretical framework is an appropriate underpinning for this study because the process of job satisfaction, nurse to patient ratio, and nurse burnout involves interactions and transactions. When factors in the nurse to client relationship cause stress role conflict manifests as nurse burnout and higher nurse turnover rates.

### **Conceptual Definition**

King theorizes that role expectations and role performance, as perceived by nurse and client must be congruent for transaction to occur and goals to be attained (Cooper & Buckner, 2005). Additionally, perceptual accuracy plays a part in goal attainment. Therefore, if a manager or supervisor intently listens to nurses with an open mind, the nurse is more likely to perceive him or her as helpful and understanding. This

administrative support will also, in turn, help to achieve goal attainment by increasing job satisfaction and decreasing nurse burnout.

### **Theoretical Definition**

King's concept will focus on the relationship of nurse to patient ratio and job satisfaction on nurse burnout in the home healthcare setting. In order for there to be a cause and effect scenario, there has to be a relationship between these factors. The hypothesis that is formulated in this study is that a higher nurse to patient ratio and less job satisfaction will increase nurse burnout in the home healthcare setting. As nurse to patient ratio increases, it causes a bigger strain on the nurse-patient relationship because nurses are unable to spend the necessary time that they need with each patient. This allows less interaction with the patients and less time to establish goal directed transactions. According to King, when this process does not occur the nurse and client are unable to obtain goals causing role conflict and stress in the nurse-client interactions because effective nursing care is unable to take place. One study revealed that nurses were not as concerned with the increase in fatigue associated with an increase in nurse-patient ratio; however, their concern was that they did not have the power to meet patients' needs and secure quality of care (Billeter-Koponen & Freden, 2005). Applying King's theory to this research topic highlights the possibility that the stress that occurs from an increase in nurse to patient ratio, and job dissatisfaction will cause nurse burnout due to role conflict. Role conflict manifests as the nurse feeling as though he or she is providing inadequate care for his or her patients. The concept of role conflict can be translated into variables which involves the nurse's expectation of his or her co-workers and managers, the nurse's expectations of himself or herself, and the managers'



expectations of the nurses. The variables for the concept of stress are patient acuity, long work hours, low pay, and nurse to patient ratio. Lastly, the concept of job satisfaction can be seen in the overall work environment and morale of the employees.

### **Empirical Definition**

The Maslach Burnout Inventory (MBI) is the most widely used instrument for measuring job-related burnout in human service professionals, due, in part, to the wealth of research in support for its reliability and validity (Maslach et al., 1996). It is a 22-item questionnaire that assesses emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA) (Maslach et al., 1996). The nine items of the EE subscale describe feelings of being emotionally overextended and exhausted by one's work; the DP subscale contains five items assessing an unfeeling and impersonal response towards the recipients of one's care (i.e., patients); and the eight items of the PA subscale describe feelings of competence and successful achievement in one's work with people (Beckstead, 2002). Maslach et al. (1996) reported internal consistency estimates of reliability: 0.90, 0.79, and 0.71, for the EE, DP, and PA subscales, respectively.

A 43-item questionnaire on job satisfaction will also be given to each participant that is based on the Measure of Job Satisfaction (MJS) (Traynor, n.d.). Respondents are asked to rate their degree of job satisfaction on a five-point Likert scale, ranging from "very satisfied" to "very dissatisfied." It comprises seven subscales which may be combined to give a measure of "Overall Job Satisfaction" (Traynor, n.d.).

### **Definition of Terms**

Burnout is typically conceptualized as a syndrome characterized by emotional exhaustion, depersonalization, and reduced personal accomplishment (Jennings, 2008).

The consequences of burnout include low morale, increased absenteeism due to sickness, decreased effectiveness and productivity, poorer job performance and patient care, and higher staff attrition and turnover (O'Mahony, 2011). The American psychologist Herbert Freudenberger used the term "burnout" to describe the consequences of severe stress and high ideals experienced by people working in "helping" professions (Institute for Quality, 2012). Maslach and Jackson state that "burnout is the result of chronic stress (at the workplace) which has not been successfully dealt with" (Weber & Jaekel-Reinhard, 2000, p. 512).

Robert Hoppock created one of the most widely cited definitions of job satisfaction in which he describes the construct as being any number of psychological, physiological, and environmental circumstances which leads a person to express satisfaction with their job (Hoppock, 1935). The definition of job satisfaction has visibly evolved through the decades, but most versions share the belief that job satisfaction is a work-related positive affective reaction.

There are several different levels of nurses which are based on the nurses educational level. For the intentions of this research study, Registered Nurses (RNs) and Licensed Practical Nurses (LPNs) will be defined. RN is the designation given to an individual who is licensed to practice professional nursing, holds ultimate responsibility for direct and indirect nursing care, and is a graduate of an approved school for professional nursing (Weydt, 2010). RNs are responsible for providing nursing care, health maintenance, education, emotional support, planning and restoration for optimal functioning, and comfort of the patients and families they serve (Bureau of Labor Statistics, 2012). They work in a variety of settings, including hospitals, physicians'

offices, home healthcare services, hospice, and skilled nursing facilities. The LPN holds a license to practice and functions in a task-oriented role under a RN's direction (Shaffer, Johnson, & Guinn, 2010). RNs have a broader range of skills that they are allowed to provide, and the RN assigns and supervises parts of the nursing process to the LPN as defined by the organization (Shaffer et al., 2010).

Nurse-patient ratio has a couple different ways in which it can be defined. When looking at nurse-patient ratios in the hospital setting, the acuity level of patients is often taken into consideration. However, for purposes of this research study, nurse-patient ratio will be defined as the number of patients assigned per nurse. Demographic data for this study will ask for the "current number of patients you are managing care for on a weekly basis." For example, if a nurse states that he/she currently manages care for 12 patients on a weekly basis, then the nurse-patient ratio is 1:12.

### **Summary**

Nurse burnout has consequences for the personal well-being of human service providers, their job performance, and the well-being of their service recipients. There is evidence that the increase in patients per nurse ratio and job dissatisfaction are leading causes of nurse burnout in the United States; however, current research mostly focuses on the hospital setting which limits the generalization of the findings. Therefore, more research is needed beyond the hospital environment. The purpose of this MSN thesis was to examine the relationship between job satisfaction and nurse-patient ratio with nurse burnout among home health nurses. The hypothesis is that home health nurses who experience a higher nurse to patient ratio and greater job dissatisfaction will experience increased nurse burnout.

## **CHAPTER II**

### **Literature Review**

The purpose of this MSN thesis was to examine the relationship between job satisfaction and nurse-patient ratio with nurse burnout among home health nurses. It is clear that these two factors play a role in nurse burnout among nurses in a hospital setting; however, it is not evident whether these areas affect nurse burnout in a different setting. A review of literature helped to gain an appreciation for the current research that has been conducted in this area of interest, and also reveal the need for further research in the home health setting.

### **Review of Literature**

A review of literature is included to gain a deeper understanding of the literature that is currently available on this research topic, and to highlight gaps in research that have not captured the essence of this problem in the home health setting. Since the 1960s, research has shown that nurse staffing characteristics, such as nurse patient ratios as well as patient characteristics, correlate with a range of patient outcomes and with nurse outcomes, such as satisfaction, retention, and sickness absence. The literature review concerned recent research articles that focused on nurse to patient ratio and job dissatisfaction in relation to nurse burnout. The Cumulative Index to Nursing and Allied Health (CINAHL), EBSCO, Google Scholar, and PubMed databases were searched using the following keywords: nurse to patient ratio, job satisfaction, home health nurses, work environment, and nurse burnout. Results have been narrowed to a 17-year time frame ranging from 1996 to 2012.

## **Job Satisfaction**

**Management styles.** Job satisfaction is influenced by a multitude of interpersonal and intrapersonal factors. One of these factors is management styles. Relationships between staff nurses and nurse managers are important when examining nurse stress and burnout. Numeric ratings from a survey of 1,780 RNs indicated that supervisor support and quality of supervision were lowest for nurse managers (Fletcher, 2001). These ratings were further broken down into the following problems: inadequate unit leadership, frequent turnover of nurse managers, insufficient physical presence of the supervisor on the unit, failure to address problems, and modest awareness of numerous staffing issues. In a qualitative study of 50 nurses conducted in England, managers were identified as a direct cause of stress (Taylor, White, & Muncer, 1999). Inadequate staffing levels and patients' suffering were the two primary sources of stress (Taylor et al., 1999). The effects of management style, group cohesion, job stress, and job satisfaction on nurse retention and quality of care have also been examined. Responses from 611 RNs on 50 inpatient nursing units in four southeastern United States hospitals showed that group cohesion was higher and job stress lower when nurse managers used a more participative management style (Leveck & Jones, 1996). It explained 49% of the variance in staff nurse retention and 39% of the variance in quality of nursing care (Leveck & Jones, 1996). Experience on the unit and job satisfaction were predictors of staff nurse retention, and job stress and clinical service were predictors of quality of care (Leveck & Jones, 1996). Two more recent studies were conducted in the United States and Canada that assessed nurse burnout in nurse managers and administrators. The Canadian study examined burnout in a random sample of 286 nurses in management

positions (Laschinger, Almost, Purdy, & Kim, 2004). The United States study examined burnout among 78 hospital nurses in management positions, and it utilized the MBI as one of its instruments (Lee & Henderson, 1996). The Canadian nurses reported high levels of EE and average job satisfaction with approximately 45% of the variance in job satisfaction being explained by empowerment and burnout; whereas 49% of the United States nurses reported high levels of EE. Empowered work environments were associated with lower nurse manager burnout and better physical and mental health.

**Work environment.** Job satisfaction is also heavily influenced by the work environment. A quantitative study of 64 emergency room nurses was conducted to determine if there is a relationship between the levels of burnout and the characteristics of their work environment (O'Mahony, 2011). Sixty one percent of the nurses report some level of burnout, and 53% said that their working environment is unfavorable (O'Mahony, 2011). The overall burnout level of 60.9%, found in the study's cohort, is worrisome and could be a reflection of the work environment (O'Mahony, 2011). Nurses' belief that they lack control over their practice can be explained by the failure of administrators to listen and respond to nurses' concerns. When the nurses fail to meet their own expectations due to the excessive workload, it is bound to make them exhausted, depersonalized, and demoralized. It concluded that team-building strategies should be implemented to enhance collaboration between nurses and physicians, and face-to-face meetings with the nursing administrators are needed to support communication, act on nurses' concerns, and offer support and recognition (O'Mahony, 2011). The results are limited because the hospital had a high staff turnover rate the year before the study began, and many of the nurses who left the hospital did not provide any

information prior to leaving. This had the potential of providing more support for the study's results, but the small sample size further limits the generalization.

The relationship of nurses' perception of control over their work environment and patient outcomes with burnout was also examined among 228 nurse practitioners, nurse managers, and emergency room nurses from 30 states (Browning, Ryan, Thomas, Greenberg, & Rolniak, 2007). Emergency room nurses had the least control and the highest burnout, whereas nurse practitioners had the most control and the least burnout. Emotional consequences, control, hostility, and stressor frequency affected the level of burnout. The findings of this study are useful in developing specialty-specific interventions, such as differentiating between controllable and uncontrollable aspects of their environments (Browning et al., 2007). New ways of coping, such as relaxation techniques, could also be encouraged; hospital administrators and nurse managers could be encouraged to foster a sense of mastery among emergency room nurses (Browning et al., 2007). These specialty-specific interventions may reduce burnout and enhance retention by improving the attractiveness of the work environment.

Furthermore, a random sample of 260 hospital nurses completed questionnaires to find a method for grouping nursing stress effects (Hillhouse & Adler, 1997). This study utilized a cluster analysis which offers a statistically sound means of delineating natural groupings within data. The data revealed groupings which were based on nursing stressors, social support, and patient loads. The results suggested that the effects of stress have more to do with the characteristics of the work environment and overall workload than with the degree of specialization on the unit (Hillhouse & Adler, 1997).

The literature is clearly faithful in supporting that job satisfaction and nurse to patient ratio influenced nurse burnout, but a study conducted in Hong Kong sought to further examine the extent to which workplace social context and job content influenced burnout among nurses (Lee & Akhtar, 2011). Data were collected through a questionnaire survey of a random sample of 1,190 nurses working in 43 public hospitals in Hong Kong. It is important to recognize that nurses in Hong Kong may have very different values than those in Western culture so they may respond to social contexts differently depending on their personal goals and work values. This makes it difficult to generalize the results to the overall public; however, the results from this study contributed to the evidence in that they revealed that job content, such as workload and work pressure, was necessary but not sufficient in preventing nurse burnout (Lee & Akhtar, 2011). Workplace social context, such as social relationships with clients and coworkers, has a larger impact on shaping the emotional and cognitive relationships that can lead to burnout. Social context had stronger influences on all three burnout dimensions: emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA) (Lee & Akhtar, 2011). For example, the social context had a significant effect on PA, whereas job content positively influenced PA. Therefore, the researchers took the causes of burnout a step further in order to draw conclusions on which variable is more influential so that further research may be produced to target interventions that will reduce the sources of burnout and their consequences.

**Shift length.** Shift length, 8-hour versus 12-hour, has been explored in relation to burnout and stress. A random sample of 204 Michigan nurses aimed to compare measures of health, sleep, psychological, and social well-being, job satisfaction, and



burnout of Intensive Care Unit nurses on 12-hour and 8-hour shifts (Iskra-Golec, Folkard, Marek, & Nowarol, 1996). RNs working 12-hour shifts reported significantly higher levels of stress and burnout and worse health and well-being when compared to that of RNs working 8-hour shifts (Iskra-Golec et al., 1996). A study using a descriptive cross-sectional research design conducted on 126 Polish nurses revealed that nurses working 12-hour shifts compared unfavorably in several aspects to nurses working 8-hour shifts (Hoffman & Scott, 2003). Pay, autonomy, and professional status were among the most important determinants of career satisfaction for all RN participants. These findings suggest that RNs may experience greater professional fulfillment when strategies are implemented that promote autonomous practice environments, provide financial incentives, and recognize professional status (Hoffman & Scott, 2003). Nurses on 12-hour shifts experience significantly more chronic-fatigue, cognitive anxiety, and EE (Iskra-Golec et al., 1996).

### **Nurse to Patient Ratio**

Research has also focused on nurse to patient ratio and quality of nurse staffing in relation to nurse burnout. One of these studies was conducted in European countries to determine whether hospitals with good nurse staffing and work environments can affect patient care and nurse workforce stability. It calculated nurse staffing for each hospital from nurse surveys in which lower ratios indicated more favorable staffing, and the nurse work environment was measured using the Practice Environment Scale of the Nursing Work Environment. A cross-sectional survey, utilizing the Maslach Burnout Inventory, was then conducted among 33,659 nurses and 11,318 patients in Europe and 27,509 nurses and more than 120,000 patients in the United States (Aiken et al., 2012). The

large sample from Europe and the United States was a strength of this study, but the United States' sample was broader and included multiple types of nurses. The results recorded across the countries were also consistent, but the results were widely ranged and they do not establish causality due to the cross sectional data. The results confirmed that there are high rates of nurse burnout (10%-78%), job dissatisfaction (11%-56%), and intention to leave (14%-49%) (Aiken et al., 2012). Improved work environments and reduced ratios of patients to nurses were associated with increased care quality and patient satisfaction in all the countries surveyed. Deficits in hospital quality of care were common in all countries, and improvement of work environments and nurse to patient ratio might be a relatively low cost strategy in order to improve quality of care and patient/nurse satisfaction (Aiken et al., 2012).

A study conducted on 5,247 nurses in 39 public hospitals in Thailand aimed to determine the impact of nurse work environment and staffing on job satisfaction, burnout, and quality of nursing care. On average, the nurses cared for an average of 10 patients each; 41% of nurses had a high burnout score as measured by the MBI; 28% of nurses were dissatisfied with their job; and 27% rated quality of nursing care as fair or poor (Nantsupawat et al., 2011). The addition of each patient to a nurse's workload was associated with a 2% increase in the odds on nurses reporting high EE and a 4% increase in the odds on nurses reporting quality of nursing care as fair or poor (Nantsupawat et al., 2011). This study concludes that improving nurse work environments and nurse staffing in Thailand hospitals showed promise for reducing nurse burnout and improving quality of patient care (Nantsupawat et al., 2011). A limitation of this study was that the data

was collected on public hospitals so the results cannot be generalized beyond this population.

Further support was found for the belief that staffing and emotional exhaustion have a significant relationship in the nursing environment. Questionnaire surveys, including the MBI, were given to RNs in Scotland and England hospitals, and a total of 8,779 nurses were included in the analysis. They ensured that the sample and hospitals met the study criteria, but the environment in which the participants completed the surveys was not controlled. This eliminated the ability to prevent external variables from influencing their responses, but the results are still significant. The odds ratios for burnout increased from 0.57 to 0.67 to 0.80 to 1.00 as the number of patients a nurse was responsible for increased from 0-4 to 5-8 to 9-12 to 13 or greater (Sheward et al., 2005). This research demonstrates that nurse-patient ratio has an important impact on the nursing workforce and potentially the patients they care for (Sheward et al., 2005).

The American Nurses Association also recognizes that nurse-patient staffing ratios are a problem, but it has taken a different approach as a solution. Instead of implementing mandatory nurse-patient ratios which may exacerbate the imbalance between patient needs and available nursing resources, it proposes to base the nurse-patient ratio on actual patient care needs (Welton, 2007). This would individualize the ratio to the specific needs of each unit in the hospital.

### **Effects of Nurse Burnout**

A large quantity of research has aimed to reveal the relationship between nurse burnout and overall job satisfaction in the hospital and direct-patient care settings, but an article in *Health Affairs* also sought to estimate the effect of nurse burnout and job

satisfaction on patient satisfaction with hospitals (McHugh et al., 2011). It argued that job dissatisfaction among nurses contributes to costly labor disputes, turnover, and risk to patients. Results were gathered in a random sample fashion by utilizing three surveys, including the MBI, to measure emotional exhaustion. They obtained responses from more than 95,000 RNs which gave them a vast amount of information to analyze. They used a cross-sectional design, but a longitudinal approach would have allowed the establishment of a casual relationship between the variables. The sample is also limited to institutions that voluntarily participated which mostly included large, nonprofit, teaching institutions in heavily populated areas. Results concluded that nurses working in direct-patient care settings showed a higher degree of dissatisfaction and nurse burnout. Twenty four percent of hospital staff nurses were dissatisfied with their jobs, compared to only 7% of nurses in pharmaceutical nonclinical jobs; 34% of hospital staff nurses reported being burned out, compared to 16% of nurses in pharmaceutical nonclinical jobs; and, the percentage of patients who would definitely recommend the hospital to other people, decreased by about 2% for every 10% of nurses at the hospital reporting dissatisfaction within their job (McHugh et al., 2011).

There is also growing concern that high levels of nurse burnout could adversely affect patient satisfaction. Cross-sectional surveys, including the MBI, were administered to 820 nurses and 621 patients from 40 units in 20 urban hospitals across the United States in order to examine the effects of nurse work environment on nurse burnout and patient satisfaction (Vahey et al., 2004). The results revealed that nurses in units with poor work environments were between two and three times as likely as nurses in units with good environments to exhibit high emotional exhaustion, high

depersonalization, and to intend to leave within the next year (Vahey et al., 2004). Patients were more than twice as likely as other patients to report high satisfaction with their care when they were on units that nurses characterized as having adequate staff, good administrative support for nursing care, and good relations between doctors and nurses; these nurses also reported significantly lower burnout (Vahey et al., 2004). The results revealed that nurses' feelings of personal accomplishment were important to patient satisfaction, but it does not reveal the organizational features that account for perceptions of personal accomplishment. Nurses' feelings of depersonalization also do not appear to be associated with patients' dissatisfaction with their care, but the reason for this is unclear; therefore, future research is needed to more fully understand the causal mechanisms that link organizational features and outcomes (Vahey et al., 2004). Overall, the findings from this study reinforced the need to reduce nurses' high levels of burnout and risk for turnover while maintaining patients' satisfaction with their care.

Burnout does not only affect patients; it also affects nurses both physically and mentally. A cross-sectional study of 309 East African, female, hospital nurses sought to describe job conditions, job satisfaction, somatic complaints, and burnout (van der Doef, Mbazzi, & Verhoeven, 2012). The MBI was among the instruments utilized to measure these variables. It revealed the following: high levels of physical complaints; nearly one-third of the sample was considered burned out; and burnout is mainly associated with high workload and inadequate information provision (van der Doef et al., 2012). This study is unique because East African nurses are not highly researched, and it also had a high response rate for participants. It used reliable and valid questionnaires, but these

questionnaires have never been used in this type of culture so this presents a limitation with the results.

Research has also focused on obtaining a deeper understanding of how nurses experienced long lasting stress and burnout. One study revealed that nurses were not as concerned with the increase in fatigue associated with an increase in nurse-patient ratio; however, their concern was that they did not have the power to meet patients' needs and secure quality of care (Billeter-Koponen & Fredén, 2005). The mental and emotional consequences were more important to the nurses than the actual physical complaints. This carried over into an increase in nurse burnout and a higher nurse turnover rate. Improving staffing may save lives, decrease nurse turnover, and reduce hospital costs (Billeter-Koponen & Fredén, 2005). Persons have to be empowered in order to empower others.

### **Burnout in Home Health**

There is very limited research conducted on nurse burnout in the home health setting. A cross-sectional study of 177 female nurses from 28 home health agencies in western Japan aimed to investigate perceptions of time pressure and revealed the relationship between perceived time pressure and burnout among home health nurses (Naruse et al., 2012). It defined time pressure as stress attributed to insufficient time to complete required tasks. They broke down the results into a chart that contained the characteristics of the participants and their burnout inventory. About 30% of home health nurses perceived time pressure frequently; furthermore, the nurses who perceived time pressure more frequently also experienced higher EE and DP (Naruse et al., 2012). When home health nurses frequently experienced shortages in time, it became difficult

for them to provide quality care which potentially decreased job satisfaction. A couple weaknesses of this study are that it did not consider the average number of patient visits a nurse makes per day, and the cross-sectional design, conducted only in western Japan, limits the generalization and cause and effect conclusions.

One other study aimed to compare nursing staff competence, work strain, stress, and satisfaction in elderly care in the home health and nursing home settings. A cross-sectional questionnaire survey was given to 1,258 nurses, including RNs, LPNs, and Certified Nursing Assistants (CNAs), in two organizations in Sweden (Hasson & Arnetz, 2008). In both care settings, work-related exhaustion was the strongest (inverse) predictor of work satisfaction (Hasson & Arnetz, 2008). Work-related exhaustion, skills' development, work stress, and mental energy were significant predictors of work satisfaction ratings in both care settings (Hasson & Arnetz, 2008). The wide range of the types of nurses that are included in this study presents a limitation because the different types are not evenly represented in the two settings. Generalization is also limited because the study only encompasses two municipal older people care organizations.

The nursing staff turnover at United States home health and hospice agencies was updated in 2012, and was explored for correlations of nursing staff turnover (Luo, Lin, & Castle, 2012). A sample of 1,545 agencies and 1,036 staff participated in the survey. The three-month turnover rates of RNs and LPNs in 2007 were 10.2% and 14.3% respectively (Luo et al., 2012). Prior research has identified that staffing levels are very important to nursing staff retention in home health care agencies. This study revealed that a higher nurse staffing level reduced the odds of RN and HHA turnover (Luo et al., 2012). Since home health and hospice care is labor-intensive, a higher nurse staffing

level would help to reduce workload. A limitation of this study was that it did not include characteristics of individual nurses, such as job satisfaction, tenure of service at the agency, or their particular job performance. The results were also not reported separately for home health care and hospice care agencies.

### **Summary**

There is a body of research addressing nurse burnout and stress that spans more than 50 years. This issue is pervasive in the nursing profession and must not be ignored by health care organizations. Previous studies have shown that as nurse-patient ratios increase, so does emotional exhaustion, depersonalization, job dissatisfaction, and eventually burnout. Despite the growing body of evidence that increased nurse-patient ratios are related to decreased patient and nurse outcomes, increased mortality and morbidity among patients, increased emotional exhaustion, and dissatisfaction among nurses, there seems to be an unwillingness to accept these links because of the cost and workforce implications (Sheward et al., 2005). Current research focuses on the effects of nurse-patient ratio in the hospital setting which limits the research findings from being generalized outside of the hospital setting. Specifically, only three of the studies in the literature review were in the home health setting. The remaining studies were in the hospital, and specifically two of these studies were conducted in the emergency room setting. Ten of the studies were conducted in countries other than the United States. Six of these research articles also included the MBI in their methods of measurement. And lastly, seven of the studies used a cross-sectional design which prevents cause and effect conclusions from being drawn. Health care organizations need to assess and explore the contributors to burnout in settings other than the hospital so that they can take action to



alter these unhealthy factors. In this research study, the relationship between nurse-patient ratio and job dissatisfaction with burnout among home health nurses will be explored.

## **CHAPTER III**

### **Methodology**

The purpose of this MSN thesis was to examine the relationship between job satisfaction and nurse-patient ratio with nurse burnout among home health nurses. This study utilized convenience sampling and a descriptive correlational design among a group of home health nurses in the Piedmont Region of North Carolina. Results from the Measure of Job Satisfaction (MJS) survey and nurse-patient ratio were analyzed with the results from the MBI-HSS to determine if a relationship exists.

### **Implementation**

Data was collected using a job satisfaction questionnaire and burnout questionnaire. The job satisfaction questionnaire is based on the MJS (Appendix A), and the burnout questionnaire is based on the MBI-HSS (Appendix B) (Table 1). The questionnaires were completed by nurses who are currently employed at a home health agency in the Piedmont Region of North Carolina. The data collected from the questionnaires measured the nurses' level of job satisfaction and nurse burnout, and these results were then compared with nurse-patient ratio to determine a relationship.

Table 1

*Demographics*

ID	Gender	Hours Worked Per Week	Patients Seen Per Week	Managed Patients Per Week
01	F	31-40 hours	21-25	24
02	F	> 40 hours	10-15	12
03	F	> 40 hours	26-30	21
04	F	31-40 hours	10-15	20
05	F	31-40 hours	15-20	15
06	F	> 40 hours	26-30	30
07	F	> 40 hours	> 30	15
08	F	31-40 hours	10-15	12
09	F	31-40 hours	26-30	28
10	F	31-40 hours	10-15	12

**Setting**

This study was conducted in a natural setting, and it was implemented by utilizing one predetermined home health agency located in the Piedmont region of North Carolina. This agency provides clinical care and support services for children and adults in the home and nursing home environment. The instruments for this study were introduced to currently employed home health nurses at this selected agency. Nurses at this agency include RNs and LPNs.

**Sample**

This research study used a nonprobability sampling method called convenience sampling. This type of sampling takes the approach of including participants that happen to be in the right place at the right time (Burns & Grove, 2009). The convenience sample is home health nurses, including RNs and LPNs, in the Piedmont Region of North Carolina that are employed at the pre-selected home health agency.

## **Design**

In order to examine the relationships that exist in a situation, and focus specifically on relationships among study variables, this research study was quantitative and followed a descriptive correlational design (Burns & Grove, 2009). This type of study allowed variables to be examined in a situation that has already occurred, and no attempt was made to control or manipulate the situation (Burns & Grove, 2009). It was not necessary for the participants or situations to be manipulated because the participants' answers provided more accurate findings if they were based solely on their own experiences. A descriptive study design also provided a useful structure when the need to acquire knowledge in an area in which little research had been conducted was identified (Burns & Grove, 2009). Fifteen surveys and participant cover letters were placed in pre-stamped and addressed envelopes and delivered to the home health agency. They were then given to fifteen home health nurses who were given two weeks to complete the surveys and mail them back to the researcher. The participants were allowed to complete the surveys in an environment of their choice.

## **Protection of Human Subjects**

Permission to complete this study was obtained from the Institutional Review Board of the university prior to the initiation of this study. Participants agreeing to take part in the study received a participant cover letter assuring anonymity and voluntary participation (Appendix C). Completion of the questionnaire served as implied consent, and data was stored in a locked file cabinet. There was no anticipated risk involved nor deception in the study with no incentives offered.

## **Instruments**

The Maslach Burnout Inventory-Human Services Survey (MBI-HSS) and the Measure of Job Satisfaction (MJS) were the instruments utilized in this research study. Permission to use the MBI-HSS and MJS has been obtained from the authors of these instruments.

A 22-item questionnaire on burnout was given to each participant (Table 2). The statements on burnout were based on the MBI-HSS. The MBI-HSS (Maslach et al., 1996), containing 22 items, assesses emotional exhaustion (EE), depersonalization (DP), and personal accomplishment (PA) (i.e., burnout). The nine items of the EE subscale describe feelings of being emotionally overextended and exhausted by one's work; the DP subscale contains five items assessing an unfeeling and impersonal response towards the recipients of one's care (i.e., patients); and the eight items of the PA subscale describe feelings of competence and successful achievement in one's work with people (Beckstead, 2002). For example, a response of high DP, high EE, and low PA would represent someone with high nurse burnout. The MBI-HSS is the most widely used instrument for measuring job-related burnout in human service professionals, due, in part, to the wealth of research in support for its reliability and validity (Maslach et al., 1996). Maslach et al. (1996) reported internal consistency estimates of reliability: 0.90, 0.79, and 0.71, for the EE, DP, and PA subscales, respectively. The internal consistency of the MBI is estimated using Cronbach's coefficient alpha, in which the coefficient increases the number of intercorrelations among test items (O'Mahony, 2011). Normative values for various human service professionals have also been established by the authors (Beckstead, 2002). The group norms published for nurses and physicians are 22.19, 7.12,

and 36.53, for the three subscales, respectively (Beckstead, 2002). The standard error of measurement for each subscale is as follows: 3.80 for EE, 3.16 for DE, and 3.73 for PA (Maslach et al., 1996).

Table 2

*Human Service Survey Scores*

ID	DP-Score	DP-Group	EE-Score	EE-Group	PA-Score	PA-Group
01	1	Low	19	Moderate	40	High
02	14	High	31	High	38	Moderate
03	1	Low	17	Moderate	44	High
04	1	Low	7	Low	46	High
05	0	Low	12	Low	43	High
06	3	Low	8	Low	40	High
07	0	Low	12	Low	46	High
08	0	Low	6	Low	41	High
09	0	Low	23	Moderate	36	Moderate
10	3	Low	9	Low	44	High

A 43-item questionnaire on job satisfaction was also given to each participant that is based on the MJS (Traynor, n.d.). In this study, respondents were asked to rate their degree of job satisfaction on a five-point Likert scale, ranging from "1=very satisfied" to "5=very dissatisfied." It comprises seven subscales which may be combined to give a measure of "Overall Job Satisfaction" (Traynor, n.d.). The subscales measure satisfaction with workload, professional support, training, pay, prospects, standards of care, and personal satisfaction. Item mean scores are calculated for each subscale by dividing the

sum of item scores by the number of items comprising that scale. "Overall Job Satisfaction" is calculated by dividing the sum of the 43 items by 43. Using this instrument allowed the gathering of information to meet the objective of measuring seven subscales: nurses' personal job satisfaction, workload, professional support, training, pay, prospects, and standards of care. Traynor and Wade (1993) developed and piloted this scale for MJS with the objectives of user friendliness, simplicity, and to establish the reliability (Cronbach Alpha of 0.83) and the validity of the instrument. The reliability of the MJS has been assessed on several occasions. When Traynor and Wade (1993) developed the MJS, the internal consistency was calculated for each of the subscales and for the Overall Job Satisfaction using the main sample. A smaller sample of 37 nursing students also completed the MJS on two occasions with a two week interval between. Mean scores were computed for each administration and the two sets of scores were correlated. The correlations and Cronbach Alpha values were both satisfactory and the mean scores and standard deviations for the two occasions were almost identical, suggesting the absence of a test effect (Traynor & Wade, 1993). In South Africa, the MJS has been shown to have an internal consistency of 0.88 and a reliability of 0.86 on average (Uys, Minnaar, Simpson, & Reid, 2005). Saane, Sluiter, Verweck, and Frings-Dresen (2003), described 29 instruments of which only seven of these instruments met the defined reliability and validity criteria. The MJS has the most extensive coverage of content validity, and it includes most of the work factors that are considered necessary for good content validity (Saane et al., 2003). An advantage of this scale is the response format, in which employees are explicitly asked to rate job satisfaction. This format aids content validity and is not used in most other job satisfaction instruments.

### **Data Collection Procedure**

The survey questionnaires and demographic sheet with the participant cover letter (serving as informed consent) were distributed to the agency representative who then dispersed them among 15 of their home health nurses. The MBI-HSS test form was labeled *Human Services Survey* rather than *Maslach Burnout Inventory* so that the participants would not become sensitized to the general issue of burnout. The scale was presented as a survey of job-related attitudes. The research tools were individually placed in pre-stamped envelopes with the researcher's mailing address labeled on the envelope. The researcher was not present during the completion of the questionnaires, and adequate time (two weeks) was allowed for each participant to complete the questionnaires. The participants were each given the same instructions regarding the questionnaires, and they were allowed to complete the questionnaires in their environment of choice for their convenience. The participants were instructed not to supply their name or agency that they work for. They were required to complete the demographic sheet so that conclusions could be drawn from their results and nurse-patient ratio. The participants were instructed by the home health agency to mail all the completed research tools back to the researcher within two weeks. The participant cover letter also instructed the participants not to place a return mailing address on the envelope so that confidentiality and anonymity would be ensured.

### **Data Analysis**

In completing the MBI-HSS, respondents indicated how often, from never to every day, each of the 22 statements about the experience of burnout best matched their own thoughts and feelings. Their choices were given a score between zero and six using



a 7-point Likert scale. Then the scores for each subscale were added together and divided by the number of questions in that subscale. Each subscale is broken down into high, moderate, and low. For DP, low is defined as a score between 0 and 6, moderate is defined as a score between 7 and 12, and high is defined as a score greater than or equal to 13. For EE, low is defined as a score between 0 and 16, moderate is defined as a score between 17 and 26, and high is defined as a score greater than or equal to 27. For PA, low is defined as a score between 0 and 31, moderate is defined as a score between 32 and 38, and high is defined as a score greater than or equal to 39. For example, an average of 20 for the EE subscale would receive a moderate level of emotional exhaustion. For the purpose of this study, "managed patients per week" on the demographic sheet (Appendix C) represents nurse-patient ratio. The relationships between the nurse-patient ratio and each of the three subscales were analyzed. While constructing simple scatter plots of this relationship, subject 02 appeared to be an extreme outlier that would likely skew any analysis. Therefore, this point was removed prior to conducting further analyses. The level of significance will be set at 0.05.

The MJS is comprised of 43 items that form seven subscales of job satisfaction. The subscales can then be combined by dividing the sum of the 43 items by 43 to give a measure of "Overall Job Satisfaction" (Traynor, n.d.). The last item, item 44, is included to give an indication of global satisfaction. It can be used to give an indication of the relative importance of different aspects of job satisfaction. For example, a larger correlation between 'Personal Satisfaction' and item 44 than between 'Satisfaction with Pay' and item 44 would suggest that personal satisfaction may be more important than pay. In completing the MJS, respondents were asked to rate their degree of job

satisfaction on a five-point Likert scale, ranging from "1=very satisfied" to "5=very dissatisfied." Though a more in depth analysis of the seven subscales could have been conducted, the primary focus of this study was to determine how the calculated overall satisfaction score is impacted by the nurse patient ratio of a particular nurse. While constructing simple scatter plots of this relationship, subjects 02 and 06 appeared to be extreme outliers that would likely skew any analysis. Therefore, these points were removed prior to conducting further analyses. Statistical values are obtained from the questionnaires and the relationships between the variables are examined with each nurses' nurse-patient ratio. The level of significance will be set at 0.05.

### **Summary**

The purpose of this thesis was to examine the relationship between job satisfaction and nurse-patient ratio with nurse burnout among home health nurses. A descriptive correlational design was utilized to administer surveys to a convenience sample of home health nurses, including RNs and LPNs, in the Piedmont Region of North Carolina. The MJS measured job satisfaction, and the MBI-HSS measured nurse burnout. Participants were kept anonymous and there was no risk involved. Results from the surveys were then analyzed with nurse-patient ratio to see if a relationship exists.

## **CHAPTER IV**

### **Results**

The purpose of this MSN thesis was to examine the relationship between job satisfaction and nurse-patient ratio with nurse burnout among home health nurses. Results have been collected and analyzed in order to come to a conclusion about this proposal.

#### **Sample Characteristics**

Fifteen surveys were distributed and there was a total of five nonresponses. There were no withdrawals nor losses. The final sample size consists of 10 female nurses at the ADN and BSN level in the Piedmont region of North Carolina. Their ages range from 20 to greater than 49 years old. Their nurse experience as well as their home health care experience ranged from less than one year to more than 15 years, and their hours worked per week ranged from 31 to more than 40 hours per week. In regards to their workload, the managed patients per week ranged from 12 to 30 while the patients seen per week ranged from ten to more than 30. Age, education level, nurse experience, and home health care experience were removed from the demographics table to ensure anonymity of the participants.

#### **Major Findings**

First, the measure of job satisfaction was analyzed. Table 3 displays each subject's calculated score for each job satisfaction subscale, and the average score for each subscale is at the bottom of the table. The calculated overall job satisfaction and the stated overall job satisfaction have a correlation of 0.717 which indicates a somewhat strong relationship between the two variables (Table 4). This is to be expected because overall job satisfaction score should predict what the respondent would say is their level

of satisfaction, and the stated overall job satisfaction is the respondent's actual answer to what he or she feels is his or her level of job satisfaction. It is also noteworthy that some of the subscales seem to be better predictors of overall job satisfaction. With a correlation of 0.7456, satisfaction with professional support seems to have the strongest relationship with stated satisfaction score; whereas, satisfaction with standard of care seems to have the weakest relationship with stated satisfaction score with a correlation of 0.4869 (Table 4). The scatter plot of the relationship between calculated overall satisfaction score and nurse-patient ratio appears to show a positive association between the two (Figure 1). Therefore, as nurse-patient ratio increases, job satisfaction decreases since a higher calculated overall satisfaction score equates to the nurse being more dissatisfied. The slope of the line is 0.04175, which means for every one patient increase in nurse-patient ratio, one would expect the satisfaction score to increase by 0.04175 units. A regression analysis of overall satisfaction score and nurse-patient ratio yields a p-value of 0.0975 (Figure 1). Though it appears that there is a positive association between nurse-patient ratio and calculated overall satisfaction score, there is not conclusive evidence since the p-value of 0.0975 is greater than the significance level of 0.05.

Table 3

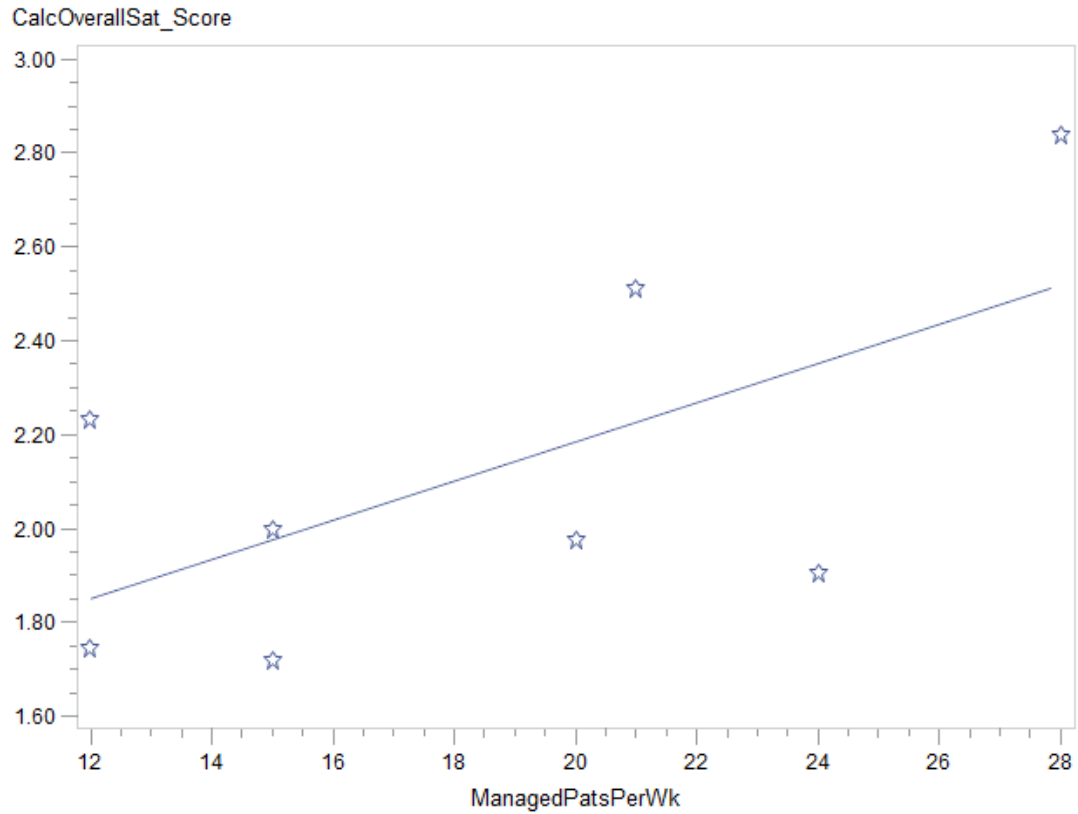
*Job Satisfaction Scores*

ID	Personal Satisfaction Score	Satisfaction with Workload	Satisfaction with Professional Support	Satisfaction with Training	Satisfaction with Pay	Satisfaction with Prospects	Satisfaction with Standards of Care	Overall Job Satisfaction (Calculated)	Overall Job Satisfaction (Stated)
01	1.33	2.13	1.50	2.60	2.00	2.50	1.50	1.91	2.00
02	2.83	3.00	3.38	4.00	3.25	4.00	2.17	3.21	4.00
03	2.33	3.38	1.88	3.00	3.00	2.17	2.00	2.51	2.00
04	1.83	2.00	1.63	2.60	2.00	2.00	2.00	1.98	1.00
05	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
06	1.00	1.50	1.00	1.80	2.50	1.50	1.00	1.40	2.00
07	1.67	1.63	2.00	2.40	1.50	1.67	1.17	1.72	1.00
08	2.17	2.25	2.13	2.40	2.00	2.67	2.00	2.23	2.00
09	2.17	3.00	2.00	3.60	4.00	3.83	2.00	2.84	2.00
10	1.17	2.13	1.13	2.40	2.00	2.50	1.17	1.74	1.00
Avg	1.85	2.30	1.86	2.68	2.43	2.48	1.70	2.15	1.90

Table 4

*Job Satisfaction Correlation*

Pearson Correlation Coefficients, N = 10								
Prob >  r  under H0: Rho=0								
	Personal Satisfaction Score	Satisfaction with Workload Score	Satisfaction with Professional Support	Satisfaction with Training Score	Satisfaction with Pay Score	Satisfaction with Prospects Score	Satisfaction with Standard of Care Score	Calculated Overall Satisfaction Score
Stated Satisfaction Score	0.63560	0.52076	0.74563	0.61104	0.56872	0.65171	0.48691	0.71707

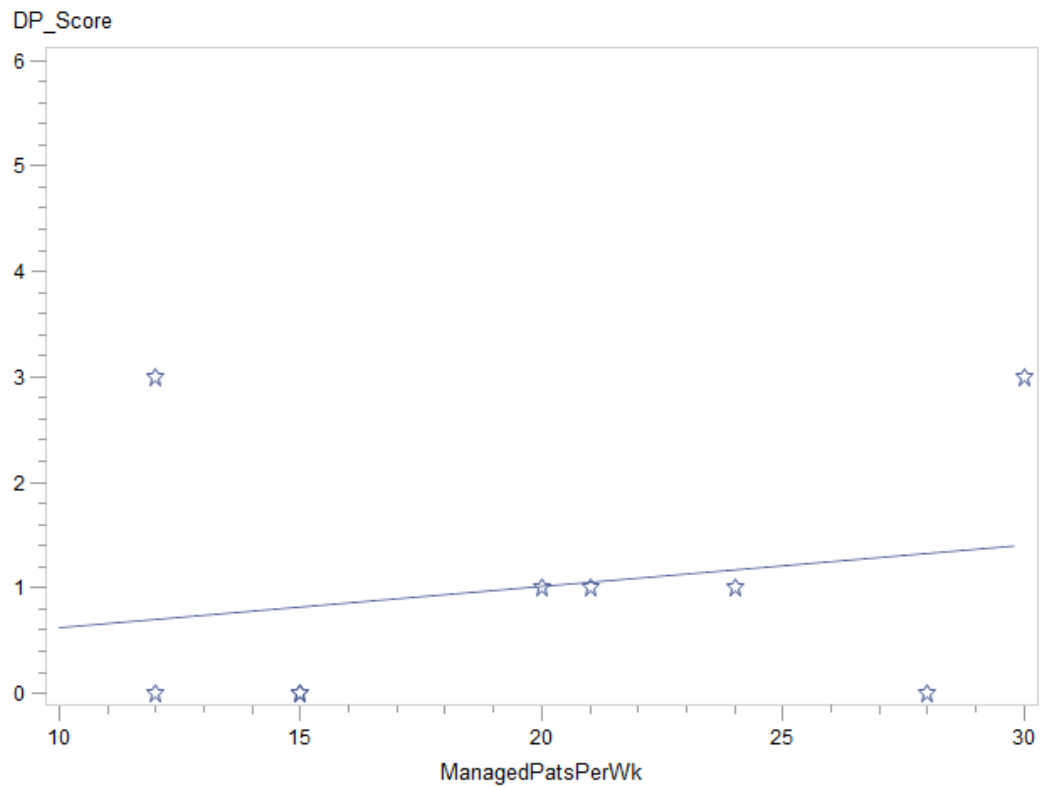


Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
<b>Managed Patients Per Week</b>	<b>1</b>	0.04175	0.02128	1.96	<b>0.0975</b>

Figure 1. Calculated Overall Satisfaction Score vs. Managed Patients Per Week with Outliers Removed

The MBI-HSS was analyzed next. Table 2 displays each subject's DP, EE, and PA score along with the classification of score as low, moderate, or high. Scatter plots for each of the three subscales and its relationship with nurse-patient ratio appear to show a positive association for DP and EE and an inverse relationship for PA. The slope of the regression line of DP versus nurse-patient ratio is 0.0391, which means for every one patient increase in nurse-patient ratio, we would expect the DP score to increase by 0.0391 units (Figure 2). A regression analysis of overall DP score and nurse-patient ratio yields a p-value of 0.5811. Though it appears that there may be a positive association between nurse-patient ratio and DP score, we cannot say this conclusively since the p-value of 0.5811 is much higher than the significance level of 0.05. The slope of the regression line of EE versus nurse-patient ratio is 0.432, which means for every one patient increase in nurse-patient ratio, we would expect the EE score to increase by 0.432 units (Figure 3). A regression analysis of overall EE score and nurse-patient ratio yields a p-value of 0.1805. Though it appears that there may be a positive association between nurse-patient ratio and EE score, we cannot say this conclusively since the p-value of 0.1805 is higher than the significance level of 0.05. And lastly, the slope of the regression line of PA versus nurse-patient ratio is -0.297, which means for every one patient increase in nurse-patient ratio, we would expect the PA score to decrease by 0.297 units (Figure 4). A regression analysis of overall PA score and nurse-patient ratio yields a p-value of 0.0827. Though it appears that there may be an inverse relationship between nurse-patient ratio and PA score, we also cannot say this conclusively since the p-value of 0.0827 is higher than the significance level of 0.05. To further summarize the findings, only one of the subjects reported high DP, four of the subjects reported

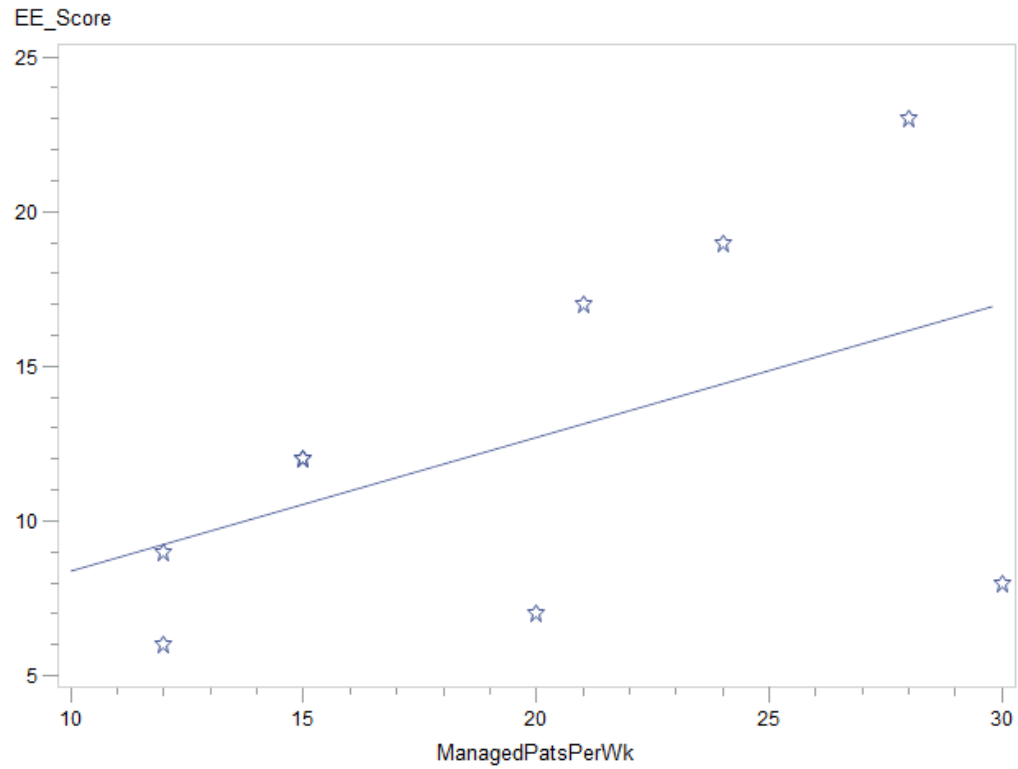
moderate to high EE, and none of the subjects reported low PA. Therefore, only one out of the 10 subjects, who is in the 20-29 year old age range, showed results that suggest high nurse burnout.



Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Managed Patients Per Week	1	0.03911	0.06760	0.58	0.5811

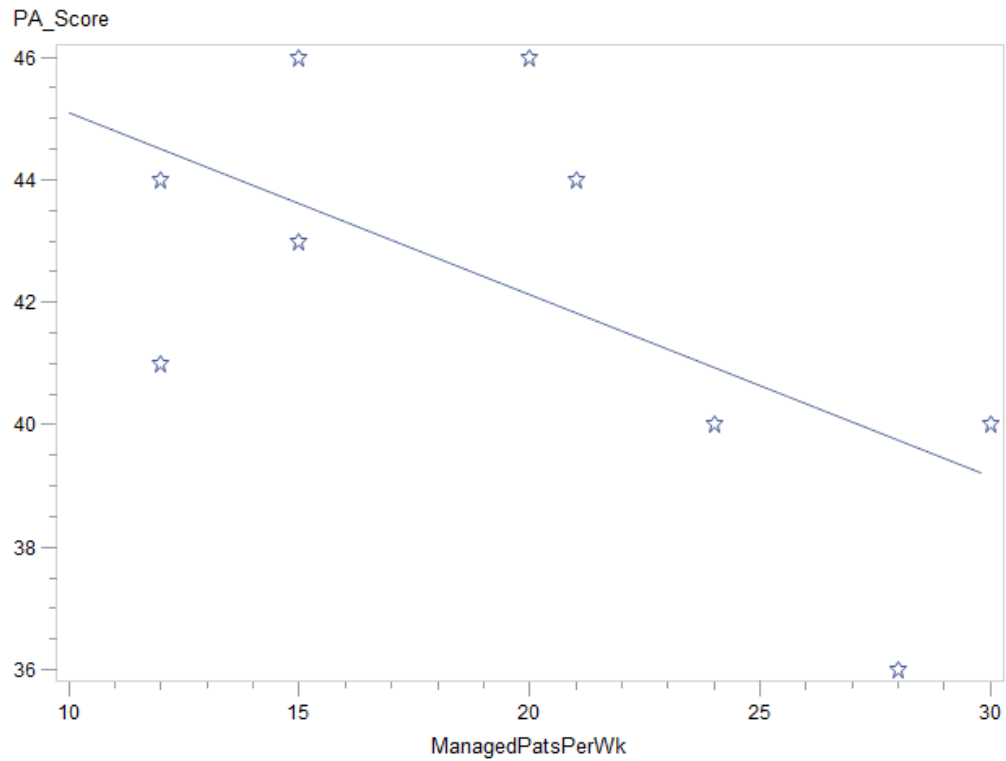
Figure 2. DP Score vs Managed Patients Per Week with Outlier Removed





Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Managed Patients Per Week	1	0.43203	0.29044	1.49	0.1805

Figure 3. EE Score vs Managed Patients Per Week with Outlier Removed



Parameter Estimates					
Variable	DF	Parameter Estimate	Standard Error	t Value	Pr >  t
Managed Patients Per Week	1	-0.29702	0.14676	-2.02	0.0827

Figure 4. PA Score vs Managed Patients Per Week with Outlier Removed

### **Summary**

Results from the surveys were analyzed with nurse-patient ratio to see if a relationship exists. The results reveal that some of the MJS subscales appear to be better predictors of overall job satisfaction, and there does appear to be a positive association between nurse-patient ratio and job satisfaction. However, it is not conclusive evidence since the p-value is greater than the significance level. In regards to nurse burnout, only one of the subjects reported high DP, four of the subjects reported moderate to high EE, and none of the subjects reported low PA. Therefore, only one out of the 10 subjects showed results that suggest high nurse burnout. Because a conclusive relationship is unable to be established between neither nurse-patient ratio and job satisfaction nor between nurse-patient ratio and nurse burnout, neither can a conclusive relationship be established between job satisfaction and nurse burnout.

## **CHAPTER V**

### **Discussion**

The purpose of this MSN thesis was to examine the relationship between job satisfaction and nurse-patient ratio with nurse burnout among home health nurses. The major findings have been examined along with the limitations and implications of this study.

### **Implication of Findings**

The hypothesis for this research study was that home health nurses who experience a higher nurse to patient ratio and greater job dissatisfaction will experience increased nurse burnout. The results reveal that some of the MJS subscales appeared to be better predictors of overall job satisfaction, and there does appear to be a positive association between nurse-patient ratio and job satisfaction. However, it is not conclusive evidence since the p-value is greater than the significance level. In regards to nurse burnout, only one of the subjects reported high DP, four of the subjects reported moderate to high EE, and none of the subjects reported low PA. Therefore, only one out of the 10 subjects showed results that suggest high nurse burnout. Because a conclusive relationship is unable to be established between neither nurse-patient ratio and job satisfaction nor between nurse-patient ratio and nurse burnout, neither can a conclusive relationship be established between job satisfaction and nurse burnout. Therefore, these findings do not support the hypothesis nor the literature that has been reviewed, and they suggest that there is a need for further exploration.

### **Application of Theoretical/Conceptual Framework**

Imogene King's conceptual system and theory of goal attainment and transactional process was the theoretical framework used for this research study. King believed that

the nurse-patient relationship is a process of action, reaction, and interaction which then causes transactions. Stress occurs if role conflict is present in the interaction phase, but positive perceptions aid in good transactions. In this research study, there was a positive association between nurse-patient ratio and job satisfaction, but no conclusive relationship could be drawn between nurse-patient ratio and nurse burnout. The study on job satisfaction revealed that the weakest correlation was the satisfaction nurses had with the standard of care that patients were receiving, whereas satisfaction with professional support had the strongest correlation. According to King's theory, one would assume that there would be a strong correlation with the nurse-patient relationship. Therefore, this framework was appropriate for this research, but the findings were not congruent with the framework.

### **Limitations**

There are several limitations to this research study that revealed areas where further research is needed. The literature review presented a limitation in that the majority of research focuses on the hospital setting. Home health nurse burnout has been an area that goes unrecognized, and this limitation is a great opportunity for further research to be conducted in order to expand our knowledge on nurse burnout in this setting. This study was primarily limited by its small sample size because it is difficult to find significant relationships from the data. A sample size of at least 30 subjects is ideal in order to be able to see trends and meaningful relationships. This sample size could have been expanded by including an earlier start in data collection which would have increased the time needed to survey more participants. There also could have been more contact between the researcher and the target sample which may have increased

participation. Access to implement the research was denied at several other larger home health agencies so this presented a challenge in finding an agency that had the desired number of nurses. The reason for access being denied was due to concerns from the agency that the surveys could actually cause burnout. Providing a thorough explanation to the home health agency of each survey instrument and the reliability and validity may help reduce this limitation in the future. The sample size also included only females in the Piedmont region which limits its generalizability to both genders and to areas outside of the Piedmont region.

Another limitation to this study was the timing of when the surveys were completed. At the time of this study being implemented, the subjects voiced that their stress level was low because their patient load was very manageable. Therefore, the results have a potential of varying depending on when the research is implemented.

### **Implications for Nursing**

Nurses should be interested in nurse-patient ratio, job satisfaction, and nurse burnout because it is such a prominent issue in health care. In regards to job satisfaction, some of the subscales in the Measure of Job Satisfaction survey seem to be better predictors of overall job satisfaction. Since satisfaction with professional support seems to have the strongest relationship with overall satisfaction, it would be beneficial for employers to focus on fostering a good relationship with their employees. Employers should research ways to promote support in the health care facilities because the money invested in this area may have the potential to save money in nurse retention. Therefore, future research on the potential for this to affect nurse retention should also be studied. In contrast, satisfaction with standard of care had the weakest relationship with overall satisfaction. This relationship may exist because nurses have control over the care they

provide patients so they are more likely to be satisfied about areas that are within their control, unlike the amount of support that they get from management. These subscales should be broken down and further studied in the future.

There is also a positive association between nurse-patient ratio and job satisfaction which reveals that as the nurse-patient ratio increases, job satisfaction decreases. According to prior research, job satisfaction played a role in nurse burnout; therefore, if nurse-patient ratio and job satisfaction are associated, then it would be important for employers to manage the nurse-patient ratio at their facilities.

### **Recommendations**

By looking at the limitation section of this study, one can see that there are areas of improvement that can be made in the future. The main recommendation is to include a larger and more diverse sample size so that detailed conclusions can be drawn. Once a larger sample size is obtained, a more detailed analysis of the demographics and survey results should be implemented. This will expand our knowledge on the research question. The "how many patients do you see per week" question on the demographic tool also does not need to be included because the "managed patients per week" is sufficient for nurse-patient ratio. This will eliminate distracters and unnecessary information from the results. Even though conclusive evidence cannot be drawn from these findings, it does not mean that this relationship can be completely eliminated. Further research should be certainly be conducted to elaborate on this topic.

### **Conclusion**

It is clear that nurse burnout is an area of extreme importance in health care, especially in home health care due to the limited research that is available. There are

multiple factors that may contribute to nurse burnout, and these factors should be studied in order to establish a potential relationship and eventually methods to alleviate the effects of burnout. Areas of improvement in this type of research have been reviewed to further the knowledge available to those who will conduct research in the future on this imperative issue.



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## Appendix A

## Measure of Job Satisfaction

**Instructions:** On the following pages are 44 statements related to job satisfaction. Please read each statement carefully, and place a check mark inside one of the boxes to the right of each statement.

	<b>Very satisfied</b>	<b>Satisfied</b>	<b>Neither satisfied nor dissatisfied</b>	<b>Dissatisfied</b>	<b>Very dissatisfied</b>
1. Payment for the hours I work					
2. The degree to which I feel part of a team					
3. The opportunities I have to discuss my concerns					
4. My salary/pay scale					
5. Being funded for courses					
6. The time available to get through my work					
7. The quality of work with patients/clients					
8. The standard of care given to patients/clients					
9. The degree to which I am fairly paid for what I contribute to this organization					
10. The amount of support and guidance I receive					
11. The way that patients/clients are cared for					
12. My prospects for promotion					
13. The people I talk to and work with					
14. The amount of time spent on administration					
15. My workload					
16. My prospects for continued employment					
17. The standard of care that I am currently able to give					
18. The opportunities I have to advance my career					
19. The extent to which I have adequate training for what I do					
20. Overall staffing levels					

21. The feeling of worthwhile accomplishment I get from my work					
22. The degree of respect and fair treatment I receive from my boss					
23. The degree of time available to finish everything that I have to do					
24. What I have accomplished when I go home at the end of the day					
25. The amount of job security I have					
26. Time off for in-service training					
27. The amount of personal growth and development I get from my work					
28. The extent to which my job is varied and interesting					
29. The support available to me in my job					
30. The amount of independent thought and action I can exercise in my work					
31. The opportunity to attend courses					
32. The possibilities for a career in my field					
33. The general standard of care given in this unit					
34. The outlook for any professional group/branch of nursing					
35. The overall quality of the supervision I receive in my work					
36. The amount of pay I receive					
37. The hours I work					
38. The extent to which I can use my skills					
39. The amount of challenge in my job					
40. The time available for patient/client care					



41. How secure things look for me in the future of this organization					
42. The contact I have with colleagues					
43. Patients/clients are receiving the care that they need					
44. Overall, how satisfied are you with your job?					

## Appendix B

## Human Services Survey

**Instructions:** On the following pages are 22 statements of job-related feelings. Please read each statement carefully and decide if you ever feel this way about *your* job. If you have *never* had this feeling, write the number “0” (zero) in the space before the statement. If you have had this feeling, indicate *how often* you feel it by writing the number (from 1 to 6) that best describes how frequently you feel that way.

How often	0	1	2	3	4	5	6
	Never	A few times a year or less	Once a month or less	A few times a month	Once a week	A few times a week	Every day

**How Often Statements:****0-6**

1. \_\_\_\_\_ I feel emotionally drained from my work.
2. \_\_\_\_\_ I feel used up at the end of the workday.
3. \_\_\_\_\_ I feel fatigued when I get up in the morning and have to face another day on the job.

For the purpose of adhering to copyright laws for the MBI-HSS instrument, only three sample items have been included in this thesis. However, the participants of this study received all 22 items.

## Appendix C

### Participant Cover Letter

I am a graduate student in the Masters of Science Nursing Program at Gardner-Webb University in Boiling Springs, North Carolina. I am conducting a study on the relationship of job satisfaction and nurse to patient ratio with job-related attitudes among home health nurses. You are being asked to participate in this study which will yield information on the causes and relationship of job-related attitudes among home health nurses, and provide awareness on areas that need improvement.

You are invited to complete anonymous questionnaires and provide your current case load (number of patients you are providing care for). Your participation in this study will take approximately fifteen to thirty minutes. Your participation in this study is voluntary and your responses will remain anonymous. The refusal to participate in this study will involve no penalty. You may withdraw from this study at any time without penalty. Please do not include your name or any markings on the questionnaires that could reveal your identity. Also, please do not include a return mailing address on the envelope that will be mailed back to the researcher. Your decision regarding participation in this study will not affect your employment or status in your job. There is no anticipation of any risk to you because of your participation in this study.

Results of this study will be shared with nursing faculty and made available for all participants. Data obtained through this study may be used in nursing publications and presentations. If this study is published or used in presentations, individual data and the site of collection will not be identified. Your return of the questionnaires signifies your

permission and enrollment in the study and serves as informed consent given. You are free to ask questions about the study or your participation in the study.

Appendix D  
Demographic Sheet

Age:     \_\_\_\_\_ 20-29 years old                   \_\_\_\_\_ 30-39 years old  
          \_\_\_\_\_ 40-49 years old                   \_\_\_\_\_ Above 49 years old

Gender: \_\_\_\_\_ Male                   \_\_\_\_\_ Female

Highest educational degree obtained: \_\_\_\_\_

Years of experience as a nurse: \_\_\_\_\_ Less than 1 year     \_\_\_\_\_ 1-5 years  
  \_\_\_\_\_ 6-10 years                   \_\_\_\_\_ 11-15 years  
  \_\_\_\_\_ More than 15 years

Years of experience as a nurse in the home health care setting:

\_\_\_\_\_ Less than 1 year                   \_\_\_\_\_ 1-5 years  
\_\_\_\_\_ 6-10 years                            \_\_\_\_\_ 11-15 years  
\_\_\_\_\_ More than 15 years

How many hours a week do you work at this home health agency?

\_\_\_\_\_ Less than 10 hours               \_\_\_\_\_ 10-20 hours  
\_\_\_\_\_ 21-30 hours                         \_\_\_\_\_ 31-40 hours  
\_\_\_\_\_ More than 40 hours

On average, how many patients do you see per week?

\_\_\_\_\_ Less than 10           \_\_\_\_\_ 10-15           \_\_\_\_\_ 15-20  
\_\_\_\_\_ 21-25                    \_\_\_\_\_ 26-30           \_\_\_\_\_ More than 30

Current number of patients you are managing care for on a weekly basis: \_\_\_\_\_