

DESCRIBING ESSENTIALS OF MAGNETISM AND QUALITY IN HOME HEALTH

by

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SIGNED Jennifer Mensik\_\_\_\_\_

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## ABSTRACT

The purpose of this descriptive study was to determine what Home Health nurses perceived to be the Essentials of Magnetism (EOM), the degree to which the EOM exists within each Home Health agency, and whether there was a relationship between quality Home Health agencies and their scores on the EOM. Home Health agencies were determined to be high or low quality agencies based on their published Home Health Compare results as obtained on the Medicare.gov website. The system research organizing model (SROM) was used as an organizing framework for this study.

There is a plethora of research within the acute care setting establishing relationships between organizational attributes and quality outcomes. There is a lack of research in the Home Health setting exploring those same variables. The Nursing Work Index Revised (NWI-R) has been used in acute care research relating organizational attributes to quality patient outcomes. This instrument has also been utilized in the Home Health setting, but there have been no published psychometric analyses to confirm generalizability to this setting. Furthermore, research with this instrument has shown it to be unreliable in the acute care setting. The development and utilization of the EOM in the acute care setting provides a foundation for studies in other settings.

Research in this study was conducted with two different sets of Registered Nurses in two different phases. The first phase of RNs ( $N = 106$ ) determined what Home Health nurses perceived to be the EOM from the 37-item Dimensions of Magnetism (DOM) instrument developed by Kramer and Schmalenberg (McClure and Hinshaw, 2002). The top 10 EOM attributes were obtained by tabulation of the number of respondents to each

question. The results showed that 7 of the top 8 EOM items chosen by the Home Health nurses were the same EOM items chosen by acute care nurses in previous studies. A test retest of the top 10 items revealed a high level of reliability (Spearman-Brown correlation of .77).

Phase Two RNs ( $N = 125$ ) determined the degree to which the EOM existed in each Home Health agency and whether there was a significant difference between high and low quality agencies. Home Health RNs from each agency were given the new 10-item EOM instrument and were asked to rank each of the items based on the degree of its presence in their current work environment. The scale had a range of 1 to 4 with one being strongly agree and four being strongly disagree. The results showed that low quality agencies had a lower and better mean score ( $M = 1.40$ ,  $SD = .34$ ) than did higher quality agencies ( $M = 1.67$ ,  $SD = .48$ ). An independent sample  $t$ -test was significant  $t(110.91) = -3.63$ ,  $p = .00$ , which is counter to the literature.

While the results were not as expected, the high reliability of the instrument suggests that it is a reliable measure of attributes perceived by RNs that allow them to provide quality patient care. Several issues identified with the outcome variables such as time sensitivity and validity may provide some explanation of the results. As well, the outcome variables may not be nursing sensitive as it is a measure of multiple disciplines impact on patient care. While the American Academy of Nursing (2004) has suggested utilization of standardized outcomes in research, these results suggest the need to develop nursing sensitive outcomes in the Home Health setting.

## CHAPTER I: LITERATURE REVIEW

### Introduction

The purpose of this descriptive study was to identify the Essentials of Magnetism (EOM) in home health care (HHC) and their relationship to home health quality measures. Health systems researchers need to identify a core set of organizational attributes that uniquely identify HHC agencies that produce high quality patient care. Utilizing the systems research organizing model (SROM) to guide this study, the specific research questions were:

1. What do HHC nurses perceive to be the Essentials of Magnetism that allow them to produce quality patient care?
2. What is the degree to which the Essentials of Magnetism exist within each Home Health Care agency?
3. Is there a difference between agencies that have high quality outcomes with those agencies that have low quality outcomes in relationship to the Essentials of Magnetism?

There are few published studies and programs of research that focus on organizational attributes and quality outcomes in HHC. Most of the research has focused on the acute care setting. Research in this area has demonstrated links between nurse satisfaction, organizational attributes, and quality indicators (Havens & Aiken, 1999). Research is needed in the home health setting to demonstrate that nurse satisfaction and organizational attributes contribute to quality patient care. The term Magnetism refers to certain organizational attributes that magnet certified health care organizations exhibit

that contribute to improved work environments and satisfaction that attract and retain RNs.

Magnet status can be awarded to any type of health care organization that demonstrates the ability to provide high quality patient care as well as attract and retain nurses through specific structures and processes as outlined by the American Nurses Credentialing Center (ANCC). There are hospital based home health agencies that have achieved magnet certification because these agencies are considered departments of the hospital and work in conjunction with the entire hospital to achieve magnet status. There are, however, no freestanding home health agencies that have obtained magnet status (ANCC, personal communication, 2005).

Certain organizational attributes are more important than others as studies have shown magnet, magnet aspiring, and non-magnet hospitals have significant differences related to the degree that certain organizational attributes are present as well as varying degrees of quality outcomes. Since research in the acute care setting has shown a positive correlation between the EOM attributes and quality patient care, the home health setting would benefit from research in this area. The home health industry is gearing towards pay for performance in relationship to quality patient care and further research into improving patient quality in this setting is needed.

Unfortunately, administrators are generally unaware of the magnet certification for home health care and most know little about the importance of this recognition in the acute care setting. Frazier (2003) identified the benefits of magnet recognition for HHC agencies but there has been little response from the trade associations and home care

leaders in the recognition of those benefits for the industry. Since 2000, HHC agencies have been able to apply and receive certification if the magnet standards were met. Although these standards are acute care based, adjustments could be made based on the nature of the practice setting.

The research completed in this study will begin to provide the information management needs to make informed decisions on the types of organizational attributes that affect the nursing work environment and contribute to quality patient outcomes. This chapter will provide a brief overview of the history of home health and discuss important concepts in the literature regarding magnetism, quality, nurse satisfaction, work environment issues, and the existing research in the acute care and home health setting.

## Background

### *Home Health Defined*

This study focused on only intermittent skilled HHC agencies. Skilled intermittent home health care agencies focus on post acute patients that need nursing or other skilled services possibly after a hospitalization or an exacerbation in their current health condition. There are over 20,000 home care agencies in the United States, of which approximately 10,000 are Medicare certified skilled intermittent. Intermittent skilled HHC is defined per the Center for Medicare and Medicaid Services (CMS) guidelines as services provided to a patient that are skilled in the nature of the treatment which requires 1) a registered nurse, and/or a physical, occupational, or speech therapist; 2) are required only on an intermittent or part time basis; and, 3) are for the purpose of improving the health of the individual.

Intermittent skilled HHC agencies may or may not be Medicare certified. If the HHC agency chooses to bill Medicare for skilled patient services, then the HHC agency must be certified. The patient must also be considered home bound, which does not necessarily limit the patient from leaving their home as much as it describes the effort of the patient if they do leave their home. Trips made by the patient outside of their home must be limited and a taxing effort on their health.

### *Financial History of Home Health*

The Home Health industry has had a rich, yet difficult history in the United States. The introduction of Medicare in 1966 had a major impact on the delivery of care provided by HHC agencies. Medicare allowed for the expanded delivery of fee-for-service home care services to the elderly and Medicaid populations. However, as noted in the following sections, changes made in Medicare reimbursement have affected the ability of HHC agencies to focus on important issues outside of financial stability.

During the 1980's, the federal government implemented the prospective payment system (PPS) for hospital acute care reimbursement. The implementation of this new method of reimbursement allowed the government to place some responsibility on the health care industry to contain rising health care costs. During this time, many hospitals looked for avenues to cut costs and increase savings. Hospitals either started home care departments or collaborated with outside HHC agencies to decrease their losses by transitioning patients to a lower level of care sooner (Dansky, Milliron, & Gamm, 1996). HHC agencies welcomed the increase in business, as they still were fee for service.

This shift from acute care also prompted an increase in the provision of unskilled services after the 1988 Duggan vs. Brown lawsuit. This case prompted Medicare to initially broaden its eligibility criteria for the Medicare HHC benefit by loosening the definition of skilled services. From this ruling, a patient with a chronic disease or a long-term need could no longer be denied coverage as long as the patient and the HHC agency could demonstrate a skilled need.

From the early 1990's until 1997, HHC became one of the fastest growing expenditures in Medicare. Expenditures during this time rose from \$3.3 billion to \$18 billion (CMS, 2003). Medicare fraud was rampant in the HHC industry as some agencies took advantage of the fee-for-service payment methodology and provided questionable unskilled nursing services. After several years of sharp increases in the financial expenditures for the HHC industry, (Figure 1) congress decided to make some critical changes to the payment structure. Operation Restore Trust and the Balance Budget Act (BBA) of 1997 introduced sweeping changes to the HHC industry. These changes solidified the current definition of skilled intermittent services provided by these HHC agencies. An interim payment system (IPS) in 1997 led to the introduction of PPS and the Outcome and Assessment Information Set (OASIS) by October of 2000. The IPS/PPS payment systems decreased expenditures in HHC by 46% within 2 years.

The OASIS data set includes assessment information collected from each patient receiving HHC benefits if that patient has any federally funded insurance source such as Medicare and/or Medicaid. The OASIS serves two main purposes: 1) to determine payment amounts per patient to the HHC agency under PPS for a 60-day episode; and, 2)

to assist the HHC agencies in monitoring indicators for Outcome Based Quality Improvement (OBQI) activities (Keepnews, Capitman, & Rosati, 2004). The OASIS data is collected and reported to the public by CMS on the Home Health Compare website. The data reported on this website is used to compare all Medicare-certified intermittent skilled HHC agencies based on the outcomes of 10 selected OASIS measures.



Source: CMS, Office of the Actuary

FIGURE 1. *Changes in Home Health Expenditures*

After the implementation of the BBA of 1997, PPS, and the OASIS, many HHC agencies quickly tried to restructure in order to weather the changes but between 1997 and 2000 over 3,000 agencies closed or merged out of the approximately 10,000 Medicare certified agencies (CMS, 2003). Before 1997, the average patient received 79 home health visits per year, more than half received over 200 visits per year. During this time, there was a 60% drop in the average number of visits per year per home health beneficiary. A total decrease of 24% in the number of beneficiaries was due to the

changes in HHC eligibility (Murtaugh, McCall, Moore, & Meadow, 2003). There was also a 23% decline in the employment of nurses in the HHC industry at this time (Sochalski, 2004). As well, there was a 52% decline in program payments between 1997 and 1999 (Murtaugh, McCall, Moore, & Meadow, 2003). Despite these rapid changes, CMS reported that the quality of care was not affected (CMS, 2003).

### Significance

All of these changes occurred less than a decade ago and the focus for many HHC agencies is still financial stability. HHC agencies are currently focused on the future changes in reimbursement such as those noted in the Medicare Value Purchasing Act of 2005. This act contains a payment methodology known as pay for performance which will reward the top performing agencies based on certain quality measures and request return payment from those agencies who rank low in those quality measures.

While the HHC industry does abide by the mandatory collection of outcome data due to Medicare requirements, they are still isolated from the mainstream academic and health system achievements in quality improvement (Peterson, 2004). Most quality improvement in patient care occurs within the silo of each agency and industry efforts have not been focused on the development of a set of best practices.

With the focus on financial viability, HHC agencies have paid little attention to how organizational attributes may affect the work environment and how this may influence quality patient outcomes as well as their ability to attract and retain RNs during this current nursing shortage. With pay for performance slated to begin as early as 2007,

the HHC industry may now be ready to broaden its perspective on how organizational attributes can have a positive impact on quality patient outcomes and RN retention.

### Quality Outcomes

#### *Crossing the Quality Chasm*

In 2001, the IOM report *Crossing the Quality Chasm* stated:

‘Americans can have a health care system of the quality they need, want, and deserve. However, we are also confident that this higher level of quality cannot be achieved by further stressing current systems of care. The current care systems cannot do the job. Trying harder will not work. Changing systems of care will.’ (IOM, p.4)

The report suggested that health care has quality issues because of outdated systems of work, which sets the workforce up to fail. The IOM recommends a focus on six aims, which include safety, effectiveness, patient-centeredness, timeliness, efficiency, and equity. A second recommendation of the IOM report suggests aligning payment policies with quality improvement (IOM, 2001). MedPAC (Medicare Payment Advisory Committee) as well as the American Academy of Nursing (AAN) have made recommendations to move towards models of reimbursement such as pay for performance. Pay for performance in HHC will be discussed in a later section.

#### *Quality Agenda of the AAN*

The AAN set forth a quality agenda in 2002 of priority actions in light of the IOM report. In a positive reflection of the state of the science on health care quality, findings show that outcomes research is more likely to be theory-based and incorporate organizational and social science theories that provide a framework for future

development. While there has been movement in the generation of knowledge about work force issues and patient outcomes, more research is needed in all health care settings that utilize large data sets as well as focusing on the alignment of financial incentives for quality outcomes (Lamb, Jennings, Mitchell, and Lang, 2004). Home care is a prime setting for this research with a national database of standardized outcomes (OASIS) and recommendations for pay for performance on the horizon. However, the lack of research linking organizational attributes and patient outcomes in HHC provides a problem for individual agencies. Research that improves the understanding of how organizational attributes contribute to improved quality patient care is needed to advance the Home Health care industry towards the improvement in the delivery of quality care.

#### *Pay for Performance*

Increased health care costs, medical errors, and decreased quality are now associated with the American health care system. The current system of payment for home care agencies does not reward quality and in fact is negative towards the provision of quality care. Currently, home care agencies are paid to take care of patients without regard to outcomes such as the re-hospitalization rate of their patients. Re-hospitalization rates for home care agencies are one of the outcome measures that has never improved since monitoring began (Mazza, Will, & Fazzi, 2005). The Medicare Payment Advisory Committee (MedPAC) has made recommendations for a new payment system geared for HHC agencies as well as hospitals, Medicare Advantage plans, physicians, and dialysis centers. This new payment plan for home care would include only outcome measures. Currently, there are no structure or process measures collected in home care. Med PAC

has recommended the addition of these measures in the future, particularly those related to adverse events. Patient safety, such as falls, is an important aspect to patient quality. A structure measure in the future for HHC agencies may be whether a home care agency has a fall prevention program.

At this time, MedPAC states that utilization of data already collected for Outcome Based Quality Improvement (OBQI) could be used as a starter set for pay for performance targets in HHC. The National Quality Forum (NQF) has recommended a mixture of OBQI and Outcome Based Quality Management (OBQM) measures. One of the goals of pay for performance is to reward agencies based on their outcomes but not to increase the burden of data collection for the agency nor CMS. The utilization of currently collected data was reviewed by the NQF, Agency for Healthcare Research and Quality (AHRQ), and an expert panel at CMS, and found to be reliable and adequately risk adjusted (MedPAC, 2005). The specific pay-for-performance measures will be announced in 2006.

Pay for performance is an important issue in HHC, as it will have a financial impact on each HHC agency. Based on where an agency measures against other agencies or against a National marker set by CMS, home health agencies may initially be set to receive from or will pay back to CMS, 1-2% of their Medicare revenue from the previous year (NAHC, personal communication, 2006). Eventually as the pay for performance methodology is improved, the percentages will increase. This new payment system will encourage and align financial incentives for agencies to change structures and processes to improve the quality of their outcomes.

### *Conclusion*

HHC is at the beginning of a journey to improve patient care outcomes. With standardize outcome reporting mechanisms, quality based outcome activities, and now pay for performance, HHC can make a difference in the provision of effective and efficient patient care delivery. MedPAC, the AAN, and the IOM have all encouraged the need for financial accountability in the provision of quality patient care regardless of the health care setting. Research identifying the variables that influence quality patient care will provide a step forward for the home health industry.

### Work Environment Issues

One of the focus areas for nursing systems research has been to studywork environment issues and its impact on quality patient care. For over twenty years, researchers have studied these issues predominately in an acute care context focusing on magnet certified and magnet aspiring hospitals. With standardized outcome indicators and access to large numbers of nurses, researchers have taken advantage of this setting to understand the impact of work environment issues. Various organizational attributes have been noted to affect the work environment and positively affect patient outcomes in the acute care setting. There have been two predominant instruments used to measure these attributes in the acute care setting which include the EOM and the Nursing Work Index Revised (NWI-R). The following section will discuss the history of their development, utilization, and outcomes in this research from the start of the original magnet study to current day practice.

### *History of Magnetism*

In 1981, the Governing Council of the American Academy of Nursing appointed a task force on nursing practice in hospitals. This taskforce was to examine characteristics of organizations that impeded or facilitated professional nursing practice in hospitals. This was of interest because during this time, a nursing shortage had raised questions about why certain hospitals, despite the nursing shortage, did not have the same problem of retention and recruitment of nurses as did other hospitals in the neighboring areas. The term “magnet” was to designate those hospitals that were able to attract and retain nurses as well as provide quality care (McClure & Hinshaw, 2004). The task force recommended that the American Academy of Nursing authorize a study to identify magnet hospitals which were “those that had demonstrated the ability in attracting and retaining professional nurses in their employment and to identify the factors that seemed to be associated with their success in doing so,” (McClure & Hinshaw, 2004, p. 2)

McClure, Poulin, Sovie, and Waldelt conducted the original magnet study in 1983. The purpose of the study was to: 1) identify magnet hospitals in each of the eight regions of the country; 2) identify and describe the organizational variables that had helped to create nursing practice and hospital environments that promote nursing job satisfaction; 3) analyze the variables within these magnet programs and explicate replicable strategies for use by hospital and nursing practice organizations; 4) assemble and share through a national publication the details of selected successful strategies and programs that could be replicated to produce hospital magnetism (McClure & Hinshaw, 2002, p. 2). There were 165 hospitals originally identified by Fellows (AAN) as potential

magnet hospitals. After an independent review and evaluation of retention and recruitment records by McClure, Poulin, Sovie, and Waldelt, 41 hospitals were identified as magnet facilities.

Further investigation of these hospitals led to group interviews that were conducted with the Directors of Nursing and staff nurses. The results were categorized into three areas: 1) administration; 2) professional practice; and, 3) professional development. Concerning administration, the results showed that magnet facilities were largely engaged with the importance of participant management. Important themes within professional practice were autonomy and the image of nursing. Within professional development, the focus of continuing and formal education and career development were of particular importance. This was the beginning of the development of the concepts integral to the magnet phenomena (McClure & Hinshaw, 2002).

#### *NWI Development*

After the original magnet study in 1983, several other researchers began investigation into the magnet phenomena. Specifically, a program of research on magnet hospitals was introduced by Marlene Kramer and Claudia Schmalenberg in 1984. This research was designed to: 1) describe a random sample of magnet hospitals and nurses who work in them; 2) assess the impact of prospective payment system on nurses and nursing practice; 3) compare magnet hospitals with excellent companies as to attributes of excellence; 4) test a causal model for outcomes of job satisfaction and nurse effectiveness; 5) describe attributes of nurses working in hospitals with different external systems; and, 6) ascertain the impact of congruence in values on nurse job satisfaction

and effectiveness (McClure & Hinshaw, 2002, p. 25). This initial research brought to light the importance of organizational attributes on the impact of nurse satisfaction.

From this research, Kramer and Schmalenberg developed an instrument called the NWI. “The NWI was designed to be an all inclusive list of factors that have a bearing on job satisfaction and perceived productivity,” (Kramer & Hafner, 1989, p. 173). The NWI was created from the characteristics listed in the original Magnet Hospital Study and an extensive review of the literature on job satisfaction and work value instruments. This initial instrument contained 65 items reflecting different organizational attributes. The NWI was assessed for completeness and content validity by three of the four researchers who conducted the original Magnet study.

#### *NWI-R Development*

Between 1988 to 2002, the University of Pennsylvania’s Center for Health Outcomes conducted six studies on the effects of nursing organization and staffing on patient and nurse outcomes under the guidance of Linda Aiken. Aiken and associates focused on the development of “empirical measures of manipulable features of hospital organizations to allow for the study of the effects of potentially modifiable elements of hospital organizations on patient outcomes,” (McClure & Hinshaw, 2002, p. 62).

The research initiated by Aiken and associates advanced the research in the area of nursing workforce issues and organizational attributes by studying the connections between those attributes and patient outcomes. Where Kramer and Schmalenberg had previously looked at satisfaction and perceived productivity of patient care, Aiken made empirical connections to quality patient care.

In 2000, Aiken and Patrician revised the NWI and developed what is now known as the NWI-R. Aiken and Patrician revised the NWI because their work was not focused on job satisfaction (which was one of the NWI's major purposes) but on the presence of various organizational features. These changes were made in an effort to respond to the increased need for research on the effects of hospital organization on nurse and patient outcomes. The goal was the development of a set of manipulable traits could be implemented in any acute care setting that would improve patient outcomes and the retention of nurses (McClure & Hinshaw, 2002).

Modifications to the NWI include the elimination of two value statements about satisfaction and quality as well as several other items. The 65-item NWI tool was paired down to 55 items, which were conceptually designed to measure four attributes noted in the literature as being supportive of professional nursing practice. These four attributes include: 1) autonomy; 2) control over the work environment; 3) relationships with physicians; and, 4) organizational support (Aiken & Patrician, 2000). The researchers stated they found good internal consistency (0.96) for the entire instrument. They also discussed the content, construct, and criterion validity and stated that it was supported based on prior research (Aiken & Patrician, 2000).

Aiken and associates then utilized the NWI-R in a national study for quality in hospital units with acquired immunodeficiency syndrome (AIDS) patients. The objective was "to report on the development and utility of the NWI-R in measuring characteristics of professional nursing practice environments," (Aiken & Patrician, 2000, p. 146). The NWI-R was used to sum the nurse's response and obtain a presence score for the unit of

analysis. Results from this study demonstrated that magnet hospitals have better outcomes such as increased nurse satisfaction, lower patient mortality rates, and decrease needle stick injuries (Aiken, Clarke, & Sloane, 2001; Aiken, Clarke, Sloane, Sochalski, & Silber, 2002; Clarke, Sloane, Aiken, 2002).

In review of the NWI-R instrument, Kramer and Schmalenberg (2004) state that revisions done by Aiken and Patrician in 2000 did not solve the NWIs out datedness. Updated items that reflect organizational attributes in modern magnet hospitals such as evidence based practice need to be considered. As well, the NWI-R was designed to measure presence of attributes in the work environment, not job satisfaction or the perceived productivity of quality of care despite the continued use by other researchers for that purpose. In addition, the NWI-R instrument does not measure the perceived importance of those traits. Other researchers utilizing the instrument have found that the autonomy subscale identified by Aiken and Patrician in the AIDS study does not exist based on factor analyses done in other studies (Lake, 2002). Several other studies have identified up to nine different factors using the NWI-R instead of the four suggested by Aiken and Patrician (Choi, J., Bakken, S., Larson, E., Du, Y., & Stone, P.W. , 2004; Estabrooks, C.A., Tourangeau, A.E., Humphrey, C.K., Hesketh, K.L., Giovannetti, P., Thomson, D., Wong, J., Acorn, S., Clarke, H., & Shamian, J. 2002).

### *EOM Development*

Between 1999 and 2004, Kramer and Schmalenberg updated their work on the NWI by developing the EOM instrument. The researchers acknowledged that the NWI was outdated and that many of the 65 items were never chosen by staff nurses as

important to either their job satisfaction or quality patient care. Many of the items that were useful to job satisfaction and quality care in 1984 were not necessarily the same twenty years later. Kramer and Schmalenberg stated:

‘For an organizational attribute to be a job satisfier and/or enable quality care, both the valuation of the organizational attribute to be important for job satisfaction and work productivity, and the presence of the attribute in the work environment must be determined. Attributes present but not valued do not contribute to job satisfaction or enable quality care.’ (2004, p. 191)

The researchers created a 37-item instrument (Dimensions of Magnetism) from the NWI, which included only those items repeatedly chosen by staff nurses in studies over the last decade. These items represent a list of all attributes RNs perceived that allowed them to provide quality patient care (Appendix B). As noted in the previous discussion of the NWI, the perceived existence of certain attributes that allowed RNs to provide quality patient care accounted for their increased satisfaction, therefore, nurse satisfaction is not measured in this new instrument. Staff nurses were asked to identify 10 items that they felt allowed them to provide quality patient care. Eight of the attributes that were chosen accounted for most of the variance for perceived quality patient care in comparing magnet, magnet aspiring, and non-magnet hospitals and therefore represent the EOM.

The EOM instrument was assessed for reliability and validity. Content validity on all scales met the 90% criterion level using an expert panel. Criterion related validity was assessed and met through known groups method between magnet and magnet aspiring hospitals. Reliability based on test retest methods indicated good stability on all scales as

well as internal consistency for all scales from 0.80 to 0.90 (Kramer and Schmalenberg, 2004).

#### Beginning Research in Work Environment Measures in Home Health

Within the last decade, researchers have begun to look at work environment issues within the HHC setting. While the research is in its infancy, it has raised awareness in this setting of the potential importance of organizational attributes, nurse satisfaction, and patient outcomes. A recent study of 581 home care RNs indicated that 28% intended to leave their job within the year (Flynn, 2005). Facing the nursing shortage, “Home care leaders need to implement evidenced based strategies to improve nurse recruitment and retention,” (Flynn, 2005, p. 366). With multiple instruments available to measure important work environment traits, most of the research in HHC has used the NWI-R, which does not take into consideration nurse satisfaction. This section reviews the literature related to the work environment and quality issues in the home care setting.

#### *Work Environment Studies in Home Health*

In a 2003 study by Flynn and Deatrck, seven focus groups with 56 HHC nurses identified important attributes of HHC agencies. The researchers conducted this study to identify organizational attributes that nurses felt were conducive to good patient outcomes, based on earlier work done with the NWI-R. The findings showed that the attributes described by HHC nurses were very similar to those attributes identified by the acute care nurses with the NWI-R. These six main attributes include: 1) extensive preceptor based orientation, 2) an organized and supportive office environment, 3) reasonable working conditions, 4) accessible field security, 5) competent and supportive

management, and 6) a patient centered mission and vision (Flynn & Deatrck, 2003). The researchers point out that further research is needed to develop magnet HHC attributes and that additional studies are needed to explore organizational attributes that are important to HHC nurses related to job satisfaction and patient outcomes (Flynn & Deatrck, 2003).

Flynn, Carryer, and Budge (2005) conducted a study using the NWI-R to determine whether hospital based, home care, and district nurses would identify the same core set of organizational attributes important to the support of their practice. The researchers administered the NWI-R tool to a total of 403 home care nurses in the United States and 320 district nurses in New Zealand and pooled the answers with an existing database of 669 hospital-based nurses. Approximately 80 percent of the nurses agreed or strongly agreed that 47 of the 49 items on the NWI-R represented organizational attributes that they considered important for professional practice. The researchers suggest that further psychometric evaluation is needed to understand the appropriateness of this instrument for utilization in the home care environment.

Interestingly, in this study home health nurses in the United States scored autonomy lower in importance than the other two groups of nurses. This contradicts other researcher's results that suggest that autonomy or independence is one of the main reasons that nurses choose home health as their practice setting (Anthony & Milone-Nuzzo, 2005). As well, the definition of HHC was not stated in this study. This may have included a potential mixed sample of RNs that practice in intermittent skilled HHC agencies and those who practice in a continuous home care setting. Since there are over

20,000 home care agencies in the United States in which services vary greatly related to skilled need and Medicare-certification, the responses obtained may vary widely. An RN in a skilled agency may respond to the survey very differently than an RN in a non-skilled agency. Therefore, clarification of the intended sample is needed in order to generalize these results.

Flynn et al., (2005) also utilized this study to explore the usefulness of the NWI-R in HHC. The researchers asked the same 403 home care nurses to rank the 49 items of the instrument with a scale of 1-4 with "1" being strongly disagree with the trait as important through "4" as strongly agree that the trait is important. Comparing means, the ten agency traits that HHC nurses felt were of most important to their practice includes: 1) supervisory staff that is supportive of nursing; 2) working with nurses who are clinically competent; 3) not being placed in a position of having to do too many things that are against nursing judgment; 4) a nurse manager who is a good manager and leader; 5) a good orientation program for newly employed nurses; 6) freedom to make important patient care and work decisions; 7) an administration that listens and responds to employee concerns; 8) good relationships with other departments; 9) the plan of care is accessible and up to date for all patients; and, 10) enough registered nurses on staff to provide quality patient care (Flynn, et al., 2005).

Flynn suggests that in order to create a culture of nurse retention, management may want to ensure those 10 traits are present in the work environment. Using Donabedian's structure, process, and outcome framework, Flynn discussed the 10 traits in terms of structural and processes categories, stating that adequacy in both are needed to

achieve positive outcomes (2005). These traits are similar to the attributes discussed by Flynn in the 2003 study of home care nurses.

Autonomy and control over nursing practice have been identified in both the NWI-R and the EOM as important organizational attributes. A recent study on autonomous home care practice by Tullai-McGuinness, Madigan, and Anthony (2005) administered three different instruments to 82 HHC nurses in 11 HHC agencies to assess RN's perception of control over practice decisions and control over practice setting decisions in the HHC setting. Based from the work on magnetism in the hospital setting, research suggests that certain practice models are more conducive to nurse autonomy and control over practice (McCLure & Hinshaw, 2002). Research in home care suggests that nurses are not satisfied with the degree of input that they have at the organizational level (Ellenbecker, 2001). The three instruments administered in the study included: 1) the participation in decision activities questionnaire (PDAQ); 2) two subscales of the NWI-R autonomy and control over nursing practice; and, 3) the global appraisal of autonomous practice (GAP). Results showed that strong convergent validity was not found when evaluating the three instruments, however, RN's perceived more control over practice than decisions related to their practice setting. The researchers suggest that based on these results "organizational autonomy is not fully reflected in the practice model used by HHC agencies," (Tullai-McGuinness, et al, 2005, p. 383) and suggest that practice models such as shared governance are an important organizational attribute.

Another important organizational attribute noted in both the NWI-R and the EOM was related to management and organizational support. In the Briggs Quality

Improvement National Hospitalization Reduction study recently published by Fazzi Associates Inc. (2005), 15 frequently used strategies were identified in HHC agencies that had low re-hospitalization rates for their patients. Of the 15 strategies, management culture and support was noted as the third most utilized by 61% of HHC agencies. Special support services were ranked eighth with 47% of the agencies utilizing this strategy. The results of this study support the similarities between the acute care and HHC setting related to organizational attributes and a relationship between quality patient care.

### *Conclusion*

Beginning research into the understanding of the importance of organizational attributes on the nursing workforce has shown some promising data. Similar themes have arisen from this work such as autonomy and office and management support. Continued research is needed to identify a core set of organizational attributes that represent the HHC agencies in relationship to the ability to produce quality patient care. Utilization of the EOM for this research study is important. In the comparison of acute care based instruments with current HHC research, findings suggest that the EOM for HHC would be similar to the EOM for acute care. It is important, however, to test this assumption and allow the HHC nurses to determine the EOM for HHC from the Dimensions of Magnetism items.

Research utilizing the NWI-R has shown similar but questionable results in both settings. While the NWI-R may measure the perceived existence of an organizational attribute, it is important to note research done by Kramer and Schmalenberg in which

certain information is not taken into consideration with the NWI-R instrument. Kramer and Schmalenberg state that it is not enough that an attribute be present in an organization, but that the nurse perceives it to be important for providing quality patient care as well (2001). Based on these findings, the DOM must be administered to HHC nurses to determine the EOM for HHC.

### Nurse Satisfaction and Quality in Home Health Care

Nurse satisfaction is an important aspect to review as research demonstrates an impact on quality patient outcomes. Most of the studies around nurse satisfaction have been done within the acute care setting but recently there has been some work in the home health care setting. Based on a 1986 study by Kramer, Hafner, Hoerle; Kramer and Schmalenberg (2004) demonstrate that work productivity and job satisfaction are related intuitively and empirically. Results from a causal model study found that both attraction and retention are highly correlated with job satisfaction. More than 80% of nurse job satisfaction was explained by being able to provide quality patient care. Thus, if certain organizational attributes exist within the home care agency that are perceived to allow the nurse the ability to provide quality patient care, then higher nurse satisfaction is assumed. Kramer and Schmalenberg therefore eliminated the nurse job satisfaction component of the NWI in the development of the DOM instrument.

In a 2001 survey of 196 HHC administrators, Cushman, Ellenbecker, Wilson, McNally, and Williams (2003) found that issues with nurse satisfaction in home care were similar to those raised in hospital settings. Many HHC administrators felt that the excessive paperwork and government regulations had led to a shortage and higher

turnover of nursing staff. Interestingly, many HHC administrators felt that the working climate of the agency was created by the reimbursement system and that this system needed to be addressed in order to curtail the nursing shortage. Administrators felt that nurses stay in HHC due to the intrinsic and extrinsic rewards such as autonomy, patient relationships, and the culture and philosophy of the agency (Cushman, Ellenbecker, Wilson, McNally, and Williams, 2003).

In a review of the job growth in the health care industry by sector, Sochalski (2004) found that between 2000 and 2020 the number of HHC nurses needed will grow at twice the rate of nurses overall during this period. The need for HHC nurses between 2000 and 2010 will grow at a rate of 36% compared to 29% for all other health care workers during this period (Sochalski, 2004). Ellenbecker and Cushman (2001) found that in 2000, 82% of HHC agencies reported difficulties in attracting registered nurses and 63% reported difficulty in keeping them. Sochalski states “job satisfaction is a significant predictor of turnover, provides a window into the working conditions that nurses face, and is an indicator of the likelihood of loss from the workforce,” (2004, p. 20). Sochalski (2004) found that HHC nurse’s job satisfaction was the same as staff nurses in the hospital but differences are noted among settings (Table 1).

Hospital based research suggests that job satisfaction and poor working conditions are factors cited responsible for the nursing shortage and poor patient outcomes. There is a “virtual absence of empirical work denoting the contribution of structural features such as nurse staffing and skills to differentiated patient outcomes in HHC,” (Sochalski, 2004, p. 21).

TABLE 1. RN Satisfaction Among Settings

Setting	Percentage
Home Health	67%
Acute Care	67%
Nursing Home	65%
Ambulatory Care	78%
Community Based Care	76%

Ellenbecker (2001) conducted a study to understand job satisfaction in HHC nurses after organizational changes were made following PPS. Ellenbecker found, “Accurately measuring and tracking levels of nurses’ satisfaction can provide an early indicator of a change in the system’s ability to deliver quality patient care,” (2001, p. 462). Based on the Neal theory of becoming a home health nurse and a literature review of job satisfaction, a 21- item instrument was developed with eight subscales. Content validity was assessed with a panel of three experts. Response rate was 40 percent, totaling 254 nurses. The research findings showed that HHC nurse’s job satisfaction did not change after the changes with PPS but did show “less satisfaction with their relationship to administration and their ability to effect change in the organization,” (Ellenbecker, 2001, p. 466). There was not an assessment of reliability for this tool (Ellenbecker, 2001).

A study of job satisfaction among all HHC employees in a 2002 study included clinical and non-clinical staff (Navaie-Waliser, Lincoln, Karuturi, and Reisch, 2004). Findings show that irrespective of discipline, the top three factors associated with job satisfaction in home health care were: 1) working for a quality agency; 2) having

adequate office support; and, 3) interactions with patients that made a difference in the patient's lives (Navaie-Waliser, et al., 2004). No data was available in the article regarding the instrument psychometrics except that data was "gathered using a structured survey instrument that was pilot tested to ensure face and criterion validity" and "descriptive and bivariate analyses were performed," (Navaie-Waliser, et al., 2004, p. 89). Other findings showed that among all employees of the HHC agencies, there is a positive relationship between leadership practices and job satisfaction as well as the finding that reduced workload, improved work environment, and increased interaction with leadership were important in order to coordinate quality care (Navaie-Waliser, et al., 2004). Quality care was not defined in this study.

A descriptive study done by Anthony and Milone-Nuzzo (2005) identified factors that attracted nurses to home care and factors that contributed to job satisfaction. These researchers state that retention of nurses in the workplace is a critical factor affecting the nursing shortage, not just the decreased availability of new graduates. Data for this study was collected from 529 HHC nurses utilizing a survey instrument based from anecdotal data and a review of the current workforce literature. Results showed that practice flexibility (19%), one on one (18%) and independence (16%) were the main reasons nurses chose home care as a practice setting. Of the most dissatisfying issues faced by HHC nurses, paperwork (25%), scheduled time (12%), and wear on the car (13%) were stated. The researchers suggest that management needs to work on decreasing paperwork burden, nurture experienced and new nurses, and help nurses handle the physical work

demands as viable methods to recruit and retain nurses (Anthony & Milone-Nuzzo, 2005).

### *Conclusion*

Job satisfaction among home health nurses is an important aspect of improving quality patient care, which can be effected by organizational attributes. Kramer and Schmalenberg note, “both attraction and retention are highly correlated with job satisfaction and that more than 80% of nurse job satisfaction is attributable to being able to give quality patient care,” (2004, p. 366). Autonomy, relationships with leadership, and office support are shown to be important organizational attributes that have an impact on nurse satisfaction and theoretically will have an impact on patient outcomes.

Understanding the impact of organizational attributes within the home care agency will provide a better understanding on how to create an environment that improves patient outcomes.

Beginning research in HHC suggests similar workforce issues faced by the acute care setting. Certain organizational attributes also suggest increase nurse satisfaction in HHC. Further research is needed to explore possible relationships between organizational attributes and outcomes in HHC as there continues to be a lack of understanding on whether these organizational attributes will equate to quality patient care in the HHC setting.

### Potential for New Research Generation

As noted, most of the work on affect of organization attributes on patient outcomes and nurse satisfaction has been completed in the acute care setting. Kramer,

Schmalenberg and Aiken and associates have completed a series of studies that have spanned qualitative and quantitative designs in order to collect and compare data from magnet, magnet aspiring, and non-magnet hospitals. These studies have provided useful information for determining causal relationships between organizational attributes, nurse satisfaction, and quality patient outcomes.

Unfortunately, there is a dearth of research focusing on the causal relationships between organizational attributes, quality patient outcomes, and nurse satisfaction in the home care setting. Although there is a lack of magnet certified home care agencies, the utilization of the OASIS quality data could allow researchers to study outcomes related to specific organizational attributes in the HHC setting. Research needs to confirm a set of organizational attributes that positively affect patient outcomes and nurse satisfaction. Research into this area will strengthen the argument for the magnet certification in the HHC setting as well as encourage the HHC industry to strengthen its focus on quality patient care.

### Study Purpose and Research Questions

#### *Research Questions*

The purpose of this descriptive study was to identify the Essentials of Magnetism in home health care and their relationship to home health quality measures. The specific research questions were:

1. What do HHC nurses perceive to be the Essentials of Magnetism that allow them to produce quality patient care?

2. What is the degree to which the Essentials of Magnetism exist within each Home Health Care agency?
3. Is there a difference between agencies that have high quality outcomes with those agencies that have low quality outcomes in relationship to the EOM?

The aims of this study were to describe organizational attributes in the HHC setting that will frame the initial EOM of home care. The development of knowledge between whether there is a difference in outcomes between agencies with high quality outcomes and those with low quality outcomes will assist in explaining the relative importance of organizational attributes in HHC.

#### Summary

In review, this chapter stated the purpose of this study, presented the research questions, and discussed the relevant concepts and literature around the issue. The concepts of interest regarding work environment issues in this study are similar to those found in the acute care setting. The literature shows that work environment issues, quality, and nurse satisfaction are important issues in HHC and that more research is needed to understand those relationships in this setting. The EOM may be an important instrument towards the improvement of quality in the HHC setting and further research into instrument development for this setting is needed.

## CHAPTER II. CONCEPTUAL FRAMEWORK

### Introduction

This chapter discusses the system research organizing model (SROM) as the conceptual framework that was utilized for this study. A brief discussion and explanation of the decision to use the SROM instead of the AAN's Quality Health Outcomes Model (QHOM) will be presented. The relevant literature related to the definition of each of the main constructs of the chosen framework will be discussed. Theoretical definitions for variables as well as empirical measures for all study variables are defined in each subsection. The purpose of this chapter is to provide a theoretical base for the research.

### Theory Development and Use of Conceptual Framework

In 2002, the AAN Expert Panel on Measuring and Improving Health Care Quality set priorities in quality research for the 21<sup>st</sup> century (Lamb, Jennings, Mitchell, & Long, 2004). The expert panel stated that the research that has been done has enlightened nursing practice with a richer understanding of the impact of structure, processes, and outcomes in a nursing context. The use and development of philosophy and theories in nursing systems research is necessary for the development of knowledge. The knowledge derived from these studies needs to be theory driven so that new knowledge continues to be generated and resolves issues that are more than mere fire stomping (Lynn, 1994). In this study, the systems research organizing model (SROM) was used.

### *Systems Research Organizing Model*

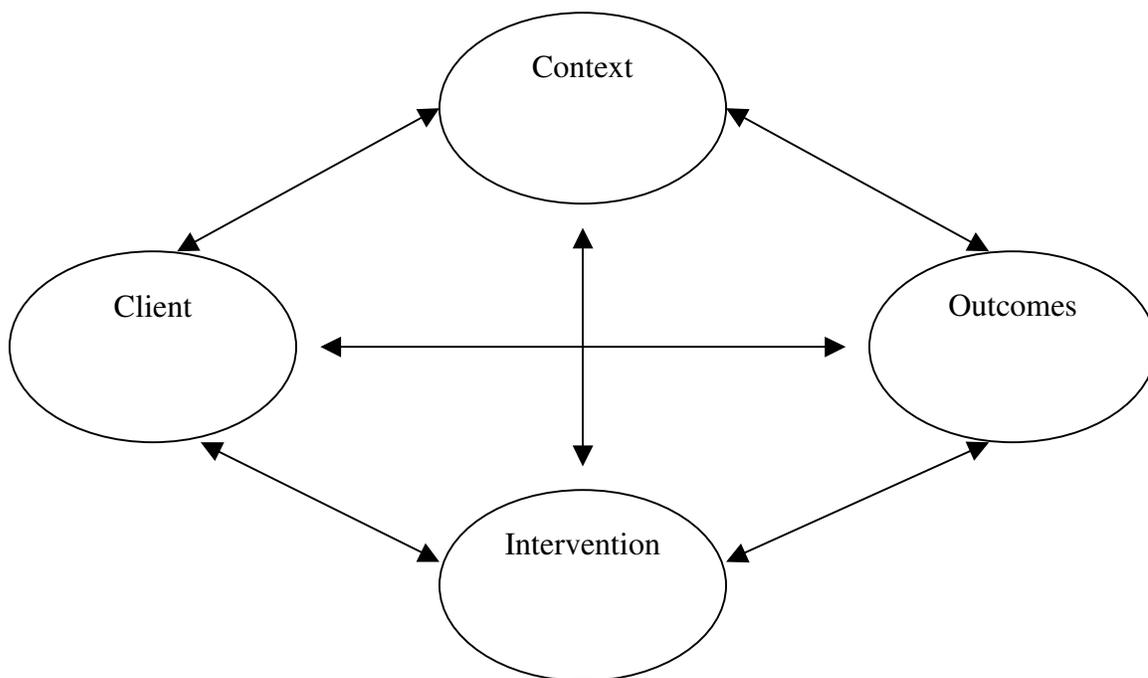
The SROM (Figure 2) was derived from the Quality Health Outcomes Model. The QHOM was developed by the AAN expert panel on quality patient care utilizing the

structure-process-outcome framework in response to the need for a model that had multiple feedback loops and outcomes that are sensitive to nursing inputs (Mitchell, Ferketich, and Jennings, 1998). Two distinguishing features of the QHOM include that interventions cannot directly lead to outcomes and the term “system” defines one of the constructs. The authors of the model felt that interventions are mediated by client and system characteristics and could not solely lead to outcomes.

The SROM has a similar framework as the QHOM with the incorporation of four constructs, which include client, context, intervention, and outcomes (Brewer, Greenberg, McEwen, Doyle, Lamb, Effken, and Verran, 2002). This tool facilitates the organization of data already known into a useful framework for research and is based in and utilizes constructs specific to systems theory.

There are several differences between the QHOM and the SROM. The construct of system in the QHOM suggests that it is a part of the whole, whereas in the SROM, system is the perspective of all the constructs together (Brewer, et al., 2002). System is replaced with the construct “context” in the SROM suggesting that the environment has an impact on all the other concepts and the system reflects the whole. Also in the SROM, the client is moved to an antecedent position. This suggests that the client drives the intervention and the outcome instead of being a mediator to the outcome as suggested by the QHOM (Brewer, et al., 2002). The SROM also makes a direct connection between intervention and outcomes. While the QHOM states that this connection can only have mediators, this direct connection in the SROM is supported by the multitude of

randomized control trials that have been done in which the purpose of the research was to look only at the direct impact of the intervention on the outcome.




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FIGURE 2. *Systems Research Organizing Model (SROM)*

The initial theoretical research model for this study observes only the relationship between the intervention and outcomes, but context and client have an important role as they assist in describing the system in this study as a whole. The following section will discuss each of the constructs, but for the purpose of this research, only the link between intervention and outcomes will be described.

*Client: Patient*

The concept of the client in the SROM may include patients, nurses, communities, or organizational characteristics as it represents the focus of the system of interest (Brewer, et al., 2002). The client in this study is the patient. The patient drives the

need for quality outcomes by expecting high quality care. High quality care is defined as high Home Health compare outcome scores. The patients' expectation places them as the antecedent to the intervention needed to produce those quality outcomes. However, specific characteristics of the HHC patients were not assessed for this study.

The concept of the nurse may also represent the client category as their characteristics may have an impact on the attributes of an organization. Since the interventions (EOM) in this study are the organizational attributes as defined by the RNs, they clearly have an impact on the intervention and the outcomes. Specific characteristics of the RN were assessed in the demographic survey (Appendix A) such as age, educational preparation, and gender as well as years in practice as an RN and years in HHC. The nurse demographic data were not used to determine any relationships between the intervention and the outcomes measures. The nurse demographic information was used strictly for reporting descriptive data for each phase.

*Context: Pay for Performance*

Context is defined as the environment, which can include both the immediate environment as well as the overall national environment. White's (1995) fifth way of knowing discusses context from the sociopolitical environment, which provides an important aspect in understanding outcomes (Brewer, et al, 2002). In this study, the context is the socio political aspect of pay-for performance within the HHC agency. As per the SROM, context may influence other model constructs as either a mediator or a moderator. The constraints that will be placed on HHC agencies due to pay for performance cannot be ignored. This concept in this study will have an indirect impact on

the patient and a direct impact on interventions that HHAs utilize in search of high quality outcomes.

Context may also include the characteristics of the individual HHC agencies. Agency characteristics may influence the intervention and outcomes in this study. Specific characteristic data was collected from each HHC agency that included status (proprietary, non-profit) and size (number of RNs).

*Intervention: Essentials of Magnetism*

Intervention is defined as the concept that is measured, changed, altered, or varies within the study or system of interest and may be considered the action variable (Brewer, et al, 2002). The intervention for this study is the EOM (Appendix C). The EOM represents items that are measured in the workforce environment that may be changed or altered. Hospitals have used the EOM to determine what work environment issues need to be addressed in response to the goal of becoming a Magnet facility. The mean should vary among HHC agencies based on the quality of patient care provided. For this study, the mean score of the EOM will be determined for each agency. Identification of a relationship between the EOM and the outcome variable is important in that the EOM attributes may be altered by nurses and nurse managers in order to improved patient outcomes.

The EOM items may also be considered context. The EOM items represent attributes of the organizational structure and processes. However, they will not be assessed and utilized within the SROM as context. In this study, the EOM items will be

considered only as interventions since they are the variables that can be manipulated in relationship to the conceptual framework.

*Outcomes: Home Health Compare Measures*

Outcomes are defined as the result of actions taken, interventions, or changes that occurred within the system, may occur at all levels of analysis, and is not an end to itself (Brewer, et al, 2002). Outcomes also have been described as the consequence of process actions or “what is accomplished, the effect of processes on staff and patients, including patient and nurse job satisfaction,” (Kramer & Schmalenberg, 2005, p 192). Outcomes in this study are patient related and are those reported by the Home Health Compare data from the CMS website for each agency involved with the data collection.

The AAN has suggested the utilization of the national standardized outcome data (Lamb, et al, 2004) such as the OASIS which is reported to the public as the Home Health Compare. There are other groupings of outcome indicators that may be more inclusive or appropriate measures of quality patient care as individually recommended by the AAN, NQF (National Quality Forum), and AHRQ (Agency for Healthcare Research and Quality). A comparison of the recommended quality outcomes for home health from these various agencies are noted in Table 2. These agencies include the NQF and AHRQ and their recommendations are compared against the current Home Health Compare measures (as noted by the initials HHC in the table). The NQF indicators were developed as a set of voluntary consensus standards for home health specifically. CMS funded the NQF in 2004 to review, examine, and recommend quality indicators that could be

inclusive of all types of home care services including skilled home health, home health aide services, palliative, end of life, and physician home care services (Zuber, 2005).

In the 2005 National Healthcare Quality Report, ARHQ published their 12 recommended measures for HHC quality, which are OASIS based ([www.arhq.gov](http://www.arhq.gov)). From these reports, CMS did update and change three of the reported Home Health Compare measures that are nationally reported.

The AAN has also determined a set of five global indicators of quality patient care that are nursing sensitive. These indicators were developed through an expert panel on quality outcomes that focused on the development of nursing sensitive outcomes and are not based on the OASIS (Mitchell, Heinrich, Moritz, & Hinshaw, 1997). These five indicators include: 1) achievement of appropriate self care; 2) demonstration of health promoting behaviors; 3) health related quality of life; 4) patient perception of being well cared for; and 5) symptom management. Some of the OASIS measures may reflect the achievement of appropriate self-care, but further work would be needed within the OASIS to create questions that would reflect the other suggested AAN indicators.

TABLE 2. Comparison of Quality Indicators

Measure	HHC	NQF	AHRQ
1. Improvement in ambulation	Yes	Yes	Yes
2. Improvement in bathing	Yes	Yes	Yes
3. Improvement in transferring	No	Yes	Yes
4. Improvement in management of oral medication	Yes	Yes	Yes
5. Improvement of pain interfering with activity	Yes	Yes	Yes
6. Improvement in status of surgical wounds	Yes	Yes	No
7. Improvement in dyspnea	Yes	Yes	Yes
8. Improvement in urinary incontinence	Yes	Yes	Yes
9. Increase in number of pressure ulcers	No	Yes	No
10. Emergent care related to wounds	No	Yes	No
11. Emergent care related to medication	No	Yes	No
12. Emergent care related to hypo/hyperglycemia	No	Yes	No
13. Acute care hospitalization	Yes	Yes	Yes
14. Discharge to community	Yes	Yes	No
15. Emergent care	Yes	Yes	No
16. Stabilization in bathing	No	No	Yes
17. Improvement in toileting	No	Yes	Yes
18. Improvement in confusion frequency	No	No	Yes
19. Improvement in upper body dressing	No	No	Yes

There are ten measures in four categories that make up the Home Health compare data (Table 3). This information is gathered from the OASIS for each patient that has any federally funded insurance source. This information set is the only National source of data for comparing outcomes among home health agencies in the United States and is measured in terms of percentages of patients. These outcome measures are related to 10

questions on the OASIS that were chosen by CMS to compare agencies outcomes for consumer utilization as well as to be used by quality management departments for OBQI and OBQM activities. These measures represent quality outcomes among home health agencies.

The updated set of publishable measures includes only those items that indicate improvement as compared to previously published outcomes that included stability measures. Stability measures were replaced with all improvement measures, as it was believed that it would be less confusing for the public to compare and understand the different measures. Home health compare measures have not been tested as nurse sensitive, but are considered a reliable indicator of quality care provided in the HHC agency. Since the Home Health Compare measures are required for collection by all Medicare certified intermittent skilled HHC agencies, it was used instead of other recommended quality outcome data. The researcher was able to obtain a complete set of outcome data for each participating agency.

TABLE 3. Ten Published CMS Home Health Compare Measures

Factor	Measure
Improvement in getting around	1. Patients that get better at walking or moving around
	2. Patients that get better at getting in and out of bed.
	3. Patients that have less pain when moving around.
After home care ends	1. Patients that stay at home after their home health episode ends.
Meeting the patient's activities of daily living	1. Patient's whose bladder control improves
	2. Patients who get better at bathing
	3. Patients who get better at taking their oral medications.
	4. Patients who are short of breath less often.
Patient medical emergencies	1. Patients who had to be admitted to the hospital
	2. Patients who need urgent, unplanned medical care.

### Research Questions

The SROM provides a framework for the research questions in this study and supports the relationship between the intervention and the outcome. The research questions for this study were as follows:

1. What do HHC nurses perceive to be the Essentials of Magnetism that allow them to produce quality patient care?
2. What is the degree to which the Essentials of Magnetism exist within each Home Health Care agency?

3. Is there a difference between agencies that have high quality outcomes with those agencies that have low quality outcomes in relationship to the EOM?

#### Summary

The purpose of this chapter was to describe the conceptual framework for this study and discuss the relevant constructs and concepts. The differences between the SROM and the QHOM were discussed. The SROM provides the conceptual framework for this study by describing how interventions (EOM) may directly influence outcomes (Home Health Compare data). The major constructs of the SROM are client, context, intervention, and outcomes. Although all the constructs are important for understanding the system as a whole, only the connection between intervention and outcomes was studied.

## CHAPTER III. METHODOLOGY

### Introduction

In this chapter, the methodology and a description of measurement variables will be reviewed. Variables include demographics, satisfaction, and the EOM attributes. This study was accomplished in two phases. Each phase is outlined under data collection. Human Subjects protection is also be reviewed.

### Research Design

A descriptive research design was used to describe the EOM (intervention) for HHC and its relationship to Home Health Compare data (outcomes). The use of an existing national database for outcome data (OASIS) provided the opportunity to describe this relationship. The descriptive study utilized a survey approach similar to the one used by Kramer and Schmalenberg (2001) in the acute care setting in determining the EOM.

### Research Setting and Data Source

The setting consisted of Medicare-certified home health care agencies from across the United States. Data to determine the attributes of the EOM was gathered from Registered Nurses at these agencies. Data for the Home Health Compare was gathered from the CMS Home Health Compare website.

### Research Sample

There were two different samples of RNs and HHC agencies utilized for this study in phase one and two. All HHC agencies were from a convenience sample of Medicare Certified agencies from across the United States. The agencies for both phases were chosen from the Home Health Compare website. The agencies in phase one and two

were chosen by selecting every tenth agency from the web site. Various states were chosen as the starting point criteria on the website. States were chosen on the premise of obtaining a cross sectional mix of agencies from across the United States. In addition to the previous selection methods, the agencies in phase two were chosen if they met the high or low quality criteria as reported on the Home Health Compare website. All RNs in the HHC agencies were asked to participate. RNs in both the first and second phase needed to have at least one year of experience in any HHC setting for their data to be used in the study.

Both non-profit and proprietary agencies were chosen for this study. There has been some research stratifying nursing homes within this category (Anderson, Issel, & McDaniel, 2003) but none within the home health setting.

#### Data Collection

Data collection for this study occurred in two different phases. The first phase answered research question one: What are the perceived Essentials of Magnetism that Home Health Nurses perceive allow them to produce quality patient care? The second phase answered the second and third questions: What is the degree to which the Essentials of Magnetism exist within each Home Health Care agency? In addition, is there a difference between agencies that have high quality outcomes with those agencies that have low quality outcomes in relationship to the EOM?

### *Phase One*

#### *Sample*

Approximately 14 agencies totaling 300 RNs were chosen for phase one from various Medicare-certified skilled intermittent home health agencies from across the United States. Criteria for RN participation included those who have practiced in HHC for approximately one year at the time of the study. Surveys were sent to the 14 agencies with the overall expected return rate of 67% or 200 completed surveys.

#### *Instrumentation*

The HHC nurses were asked to select the top 10 items on the 37-item Dimensions of Magnetism list that they perceive allow them to provide quality patientcare. Alterations were made to some of the 37 items to reflect the HHC versus a hospital environment. These alterations included changing words such as “floor” to “agency.” Wording was also changed to reflect the appropriate reference point. Any wording that may have reflected the individual agency within which the RN practiced, was changed. An example is attribute 35, which originally stated, “continued competency in nursing practice is stressed here,” had the word “here” removed. This was to encourage the RN to choose items that they perceived allowed them to provide quality patient care, not necessarily those attributes that exist within their agency.

#### *Procedure*

Simple tabulation was used to obtain the top ten responses among all HHC nurses. The first set of data was collected by sending surveys to a contact person at each HHC agency who passed the surveys to all RNs. The contact at each agency passed out the

surveys to the staff with no instruction regarding the survey. The surveys had a disclaimer page attached that explained the purpose and how to complete the survey. Nurses were asked if they would like to participate in the retest phase of this survey via the disclaimer. If the nurse desired to participate, they placed their name on the first survey so that a retest survey could be sent to them. The surveys with names were eligible for the retest survey. The survey was to be passed out during a time convenient for the agency contact. Surveys were accepted without the name of the employee. Surveys were handed out with a self-addressed stamped envelope so that the employee could return the survey at their convenience directly to the researcher without agency oversight.

#### *Reliability*

Reliability testing was determined through the test-retest method. The first 50 respondents from phase one agreeing to the retest were chosen for the second survey. The sample size was based on the expected amount of return responses. The retesting occurred approximately 10 to 14 days after the first set of data was returned to the researcher. The survey was mailed directly to the address that the RN provided to receive the retest survey. The RN's name was needed on the second survey to ensure a correct comparison of the data. The RN had the option of not participating in the retest phase even after completing the name on the original survey. The RN participating in the retest received a self-addressed stamped envelope so that the survey could be returned directly to the researcher. The retest surveys were identical to the first survey except for the exclusion of the demographic/satisfaction survey.

### *Data Analysis*

The test retest was analyzed by comparing the top 10 items chosen overall. The responses on the 10 items from the respondents on the original test and the retest were used in a split half technique to assess reliability. This result will be reported as a Spearman-Brown correlation.

### *Phase Two*

#### *Sample*

Twenty Medicare-certified agencies were chosen for this phase. The agencies were stratified and matched based on the following criteria. Agencies were stratified based on high or low quality and matched based on size (number of employed RNs) and status (proprietary vs. non-profit). Approximately half of the agencies needed to have high quality outcomes and the second half need to have low quality outcomes. An agency was considered to have high quality outcomes if it scores at least 70% of its Home Health Compare measures above the national average. An agency was considered to have low quality outcomes if 70% of its Home Health Compare measures score below the national average. This means 7 out of 10 Home Health Compare measures need to be above or below the national average.

#### *Procedure*

RNs at these 20 HHC agencies were asked to complete the new 10-item HHC EOM survey. The new survey included only those top ten EOM attributes identified in the first data collection phase. The staff were asked to rank each item on a scale of 1 to 4 with 1 being strongly agree and 4 being strongly disagree about the amount an attribute

was present in their HHC environment. Names on this second phase of surveys were not needed. A demographic and satisfaction survey was also given to the respondents.

#### *Data Analysis*

The second question was answered by obtaining mean scores for the high quality and low quality agencies. The third question required an independent sample *t*-test to determine if the mean score for the EOM is significantly different among high quality and low quality agencies.

#### *Satisfaction and Demographic Data Collection*

A 6 item demographic and a 5 item satisfaction survey (Appendix A) were given out to all participants. The demographic and satisfaction survey were placed together on the same page for convenience. Participants may have chosen to answer all or any of the questions. A satisfaction survey was added to this study as it is an important measure related to work conditions. Satisfaction scores will be obtained and discussed in relationship to the attribute and demographic data.

#### Human Subjects Protection

Human subjects protection was approved through the University of Arizona Institutional Review Board. All nurse and agency collected data were stored in a secured and locked location. Any indicators of the name of the agency or nurse were shredded at the end of the data analysis. The sample is completely volunteer based. The RNs may have chosen to end their participation at any time, particularly if they had chosen to participate in the test-retest of phase one. All participants were given a disclaimer form

describing the risks and benefits of this research. A letter of agreement to participate was obtained from each HHC agency prior to the start of the research.

### Summary

The purpose of this chapter was to provide the methodology information for this research. This descriptive study was conducted in two phases. Data was collected from RNs and from the CMS Home Health Compare website. HHC agencies were matched and stratified based on whether their outcomes, size, and status. The sample of RNs and HHC agencies represented a cross section of the United States.

## CHAPTER IV. RESULTS

### Introduction

The purpose of this section is to share the results of both phase one and two of this descriptive study. This section will discuss the findings of all three research questions including the statistical analyses and any significant comparisons of data. Further analysis on the demographics, satisfaction, and post hoc results are reported.

#### *Phase One*

##### *Demographics*

The purpose of this first section is to report the findings of the data collection for *Phase One*. A demographic, satisfaction, and Dimensions of Magnetism survey were distributed to 14 agencies totaling 300 Registered Nurses. One agency had no respondents and no contact with the investigator after the surveys were sent to their agency. Therefore, the total sample included 13 agencies from nine different states. These states represent the West, Southwest, Northeast, Southeast, and Midwest regions. From all the viable agencies, there were 260 potential RN participants. There were 106 surveys returned for a participation rate of 41%.

A six-item demographic questionnaire and a five-item satisfaction survey were given to all participants in phase one (Appendix A). The age ( $M = 47.62$ ,  $SD = 8.45$ ), length of time as an RN ( $M = 21.05$ ,  $SD = 10.13$ ), and years of experience in home health ( $M = 10.38$ ,  $SD = 6.84$ ) made up three of the questions. Gender was also asked with males representing 6.6% of the respondents. Table 4 shows the educational

preparation of the RNs. Current data on the national average of educational preparation for RNs in the HHC setting was not available for comparison to study results.

TABLE 4. Phase One Educational Preparation in Percentages

Educational Level	Percentage
Diploma	11.3%
A.D.N.	31.1%
B.S.N.	43.4%
MSN/MS	13.2%

HHC agencies in this phase were not chosen based on status or quality but for comparison, the following demographics are reported. The HHC status in this sample was 76.9% nonprofit and 23% proprietary. The ranking of each agency on the Home Health Compare scores are as follows: 38.5% were average, 15% were low, and 46.2% had high quality outcomes. The definition of quality was determined that same way as in phase two, except that average quality agencies had between four and six measures at or above that national average. The total response rate of the RNs from each agency ranged from 10% to 100% with an average of 53%.

#### *Satisfaction*

The satisfaction survey (Appendix A) was administered to all participants. Questions 2 and 5 were reverse coded. Overall satisfaction for the sample excluding missing data ( $N = 90$ ) was low ( $M = 3.80$ ,  $SD = .75$ ). Satisfaction for proprietary ( $M = 3.67$ ,  $SD = .72$ ) and non-profit agencies ( $M = 3.81$ ,  $SD = 1.12$ ) showed that RNs are more satisfied in the latter type of agencies. The comparison of satisfaction scores between the high and low quality agencies reveals an increasing satisfaction score from

low quality ( $M = 3.50$ ,  $SD = .73$ ) and average quality ( $M = 3.81$ ,  $SD = .67$ ) to high quality agencies ( $M = 3.86$ ,  $SD = .85$ ). The RNs were also asked if they planned to leave their job with 91.9% of respondents stating 'no,' 4.7% stating 'yes,' and with 3% missing data.

### *Research Question One*

The first question of this research study was to determine what HHC nurses perceived to be the Essentials of Magnetism that allow them to produce quality patient care. Simple tabulation of the responses as percentages was used to determine the top ten organizational attributes. Kramer and Schmalenberg's (2004) 37-item DOM instrument was used to collect this data (Appendix B).

#### *Essentials of Magnetism in Home Health*

The Essentials of Magnetism for home health are presented in Table 5. These attributes include: 1) concern for patient is paramount, 2) supportive nurse managers and supervisory personnel, 3) adequate nurse staffing, 4) working with other nurses who are clinically competent, 5) flexible work scheduling, 6) good RN-MD relationships, 7) Nurse autonomy and accountability, 8) continued competency in nursing practice is stressed, 9) adequate support services, and 10) In services, CE education. The top ten items are presented based on the highest percentages as chosen by the home health RNs (38.4% to 88.9%). Seven of the items had at least a fifty percent majority of nurses agree that they were the most important attributes. The top ten items were used for the phase two data collection.

TABLE 5. Top Ten Essentials of Magnetism in Home Health by Percentage

Organizational Attribute	Percentage
Concern for patient is paramount	89.6%
Supportive nurse managers and supervisory personnel	80.2%
Adequate nurse staffing	79.2%
Working with other nurses who are clinically competent	72.6%
Flexible work scheduling, self scheduling	67.9%
Good RN-MD relationships	60.4%
Nurse Autonomy and accountability	51.9%
Continued competency in nursing practice is stressed	44.3%
Adequate support services	41.5%
In-Service, CE education	38.7%

Table 6 compares the results of a 2004 study by Kramer and Schmalenberg of staff nurses in the acute care setting with those results in this study. The results in the table show only responses for the top 8-items chosen by staff nurses. Kramer and Schmalenberg (2004) included only those items with a two-thirds majority response in their list of the Essentials of Magnetism.

Seven of the top eight organizational attributes that make up the Essentials of Magnetism for staff nurses were the same attributes chosen by home health nurses. One major difference was that control over nursing practice was chosen by only 13.2% of home health nurses. Since only the items with a majority agreement make up the EOM for the acute care setting, there are only 8 items from the acute care setting to compare against the 10 items from the HHC setting. Items that may have ranked 9<sup>th</sup> and 10<sup>th</sup> in the acute care setting were not found in the literature.

TABLE 6. Comparison of Staff and Home Health Nurses by Percentage and Rank

Organizational Attribute	Staff Nurses %	Rank	HHC Nurses %	Rank
Working with other nurses who are clinically competent	80.1%	1	72.6%	4
Good RN-MD relationships and communication	79.2%	2	60.4%	6
Nurse autonomy and accountability	73.5%	3	51.9%	7
Supportive nurse manager, supervisor	69.5%	4	80.2%	2
Control over nursing practice	68.9%	5	13.2%	23
Support for education	66.2%	6	38.7%	10
Adequate nurse staffing	62.5%	7	79.2%	3
Concern for patient is paramount	62.0%	8	89.6%	1
Flexible work scheduling	-	-	67.9%	5
Continued Competency	-	-	44.3%	8
Adequate support services	-	-	41.5%	9

*Note.* Support for education in table 6 is the same attribute as In-service, CE education in Table 5. Staff nurse percentage and rank results from McClure and Hinshaw (2002).

#### *Reliability Analysis*

A test-retest was conducted using a Spearman Brown correlation. Of the 106 respondents ( $n = 75$ ), 71% agreed to the second survey. The first 50 surveys that were returned to the researcher that agreed to the second survey were included in the test-retest procedure with a 66% return rate ( $n = 33$ ). The second survey was sent to the participants within an average timeframe of 14 days with a total range of 10 to 18 days. The Spearman-Brown (.77) indicated a satisfactory level of reliability with the top ten items chosen to represent the EOM in home health.

### *Summary*

Simple tabulation methods were used in Phase One to determine the top ten organizational attributes that HHC nurses perceive allow them to provide quality patient care. The top ten attributes were determined from a list of 37 items refined by Kramer and Schmalenberg (2004). There were 106 RN participants for a 41% response rate. A test-retest was performed to assess for reliability using the top ten items. A Spearman-Brown correlation of .77 indicated a high level of reliability for the EOM in HHC.

### *Phase Two*

Research questions two and three asked: 1) 'To what degree do the Essentials of Magnetism exist within each Home Health Care agency?' and, 2) 'Is a difference between agencies that have high quality outcomes with those agencies that have low quality outcomes in relationship to the EOM?' Mean scores for each agency were determined and an independent sample *t*-test was conducted to determine the results for the second phase.

### *Demographics*

The 6-item demographic and 5-item satisfaction survey that was used for phase one was also used in Phase Two. This was given to all survey participants. There were approximately 339 RNs who were asked to participate from 20 HHC agencies. Only 16 agencies and 311 RN's surveys were viable for this phase of the study. Four of the agencies did not return data within the specified time frame of three weeks. Of the 16 agencies that participated, 10 states represented the Northwest, Southwest, Midwest,

Northeast, and Southeast regions of the United States. There were two different samples of agencies and RNs for Phase One and Phase Two.

The agencies were stratified based on the following: non-profit with high quality outcomes ( $n = 5$ ), non-profit with low quality outcomes ( $n = 5$ ), proprietary with high quality outcomes ( $n = 3$ ), and proprietary with low quality outcomes ( $n = 3$ ). The response rate from the RNs per agency varied from 7% to 63% with a mean response rate of 34%. Only three agencies had a response rate greater than 50%. The range of RNs per agency varied greatly from 5 to 65. A majority of agencies ( $N = 10$ ) had 15 or less RNs per agency which is less than the average ( $M = 19.4$ ). The agencies were also matched based on the approximate number of RNs. The total number of respondents from high quality non-profit agencies ( $n = 54$ ), high quality proprietary ( $n = 10$ ), low quality non-profit ( $n = 38$ ), and low quality proprietary ( $n = 20$ ) show that the agencies were not matched well after the survey returns. Table 7 notes a detailed breakdown in the respondents for each agency. Agencies B, K, M, and T did not have any respondents.

TABLE 7. Mean Response Rates by Agency Type

Agency	Type	Quality	Total RNs	Total Responses	%Response
A	Non-profit	High	65	29	45%
C	Non-profit	High	15	1	7%
D	Non-profit	High	8	3	38%
E	Non-profit	High	35	15	43%
F	Non-profit	High	10	6	60%
G	Non-profit	Low	16	6	38%
H	Non-profit	Low	12	3	25%
I	Non-profit	Low	11	5	46%
J	Non-profit	Low	16	10	63%
L	Non-profit	Low	50	17	34%
N	Proprietary	High	15	6	40%
O	Proprietary	High	5	2	40%
P	Proprietary	Low	18	11	61%
Q	Proprietary	Low	15	5	34%
R	Proprietary	Low	15	4	27%
S	Proprietary	High	5	2	40%

Of the viable surveys, there was an overall response rate of 40% ( $N = 125$ ). The demographics for phase two RNs were similar to those found in phase one. Age ( $M = 50.30$ ,  $SD = 9.32$ ) was slightly higher, years of RN experience ( $M = 22.02$ ,  $SD = 10.76$ ) was also slightly higher as was years of home health experience ( $M = 10.94$ ,  $SD = 6.77$ ). The number of male respondents ( $n = 4$ ) was lower than phase one. A significant difference in this phase was educational preparation. There were more ADN prepared RNs than BSN prepared RNs as noted in Table 8.

TABLE 8. Phase Two Educational Preparation in Percentages

Educational Preparation	Percentage
Diploma	14.4%
A.D.N.	48.0%
B.S.N.	30.4%
MS/MSN	6.4%

*Research Question Two*

This section will discuss the results of Question Two: What is the degree to which the Essentials of Magnetism exist within each Home Health Care agency? Table 9 displays the mean EOM per agency. Due to the unexpected results, further breakdown of the results are noted by status, quality, and educational level (Table 10 and 11). The 10-

TABLE 9. Mean Attribute Score by Agency (SD)

Agency	Type	Quality	Mean Score
A	Non-profit	High	1.82 (.46)
C	Non-profit	High	2.80 (0)
D	Non-profit	High	1.60 (.35)
E	Non-profit	High	1.69 (.40)
F	Non-profit	High	1.30 (.28)
G	Non-profit	Low	1.67 (.50)
H	Non-profit	Low	1.45 (.07)
I	Non-profit	Low	1.88 (.37)
J	Non-profit	Low	1.45 (.28)
L	Non-profit	Low	1.36 (.21)
N	Proprietary	High	1.35 (.62)
O	Proprietary	High	1.30 (.14)
P	Proprietary	Low	1.12 (.15)
Q	Proprietary	Low	1.18 (.19)
R	Proprietary	Low	1.50 (.37)
S	Proprietary	High	1.60 (.42)

*Note.* Lower mean represent better attribute scores.

TABLE 10. Mean Attribute Results by Quality

Attribute	High Quality		Low Quality	
	Proprietary <i>M (SD)</i>	Non-profit <i>M (SD)</i>	Proprietary <i>M (SD)</i>	Non-profit <i>M (SD)</i>
1. Concern for Patient	1.10 (.32)	1.40 (.63)	1.00 (<.01)	1.07 (.26)
2. Adequate Nurse Staffing	2.10 (.99)	2.30 (.80)	1.33 (.59)	2.26 (.88)
3. Supportive Nurse Manager	1.30 (.68)	1.60 (.74)	1.11 (.32)	1.28 (.50)
4. Working with other Nurses who are clinically competent	1.10 (.32)	1.51 (.61)	1.06 (.24)	1.14 (.35)
5. Flexible Work Scheduling	1.20 (.42)	2.09 (.86)	1.06 (.24)	1.51 (.63)
6. Good RN–MD Relationships	1.50 (.85)	1.77 (.61)	1.28 (.46)	1.51 (.74)
7. Nurse Autonomy	1.20 (.42)	1.55 (.54)	1.17 (.38)	1.19 (.39)
8. Continued competency	1.40 (.70)	1.64 (.68)	1.11 (.32)	1.44 (.77)
9. Adequate Support Service	1.60 (.70)	1.75 (.59)	1.39 (.61)	1.76 (.69)
10. In-Service, CE Education	1.40 (.97)	1.68 (.70)	1.28 (.46)	1.74 (.82)
Overall Satisfaction	4.32 (.90)	3.66 (.83)	4.51 (.60)	3.99 (.62)

*Note.* Lower mean represent better attribute scores.

item EOM survey (Appendix C) administered in this phase had potential scores on each question ranging from 1 to 4 with 1 being strongly agree to 4 being strongly disagree with the existence of the attribute in their respective agency. Of the 16 agencies ( $N = 125$ ), differences were noted between high ( $M = 1.67$ ,  $SD = .48$ ) and low quality agencies ( $M = 1.40$ ,  $SD = .34$ ) with overall results that ranged from 1.00 to 2.80 ( $M = 1.54$ ,  $SD = .44$ ). Differences were noted between proprietary ( $M = 1.25$ ,  $SD = .36$ ) and non-profit agencies ( $M = 1.63$ ,  $SD = .42$ ) respectively. The results for the high and low quality agencies were counter from the literature.

### *Research Question Three*

In this section, the results are presented for the third research question: Is there a difference between agencies that have high quality outcomes with those agencies that have low quality outcomes in relationship to the EOM? An independent samples *t*-test

was conducted to evaluate the question on whether there was a significant difference between these two groups. The test was significant,  $t(110.91) = -3.63, p = .00$ , but the results were counter to the literature. The 95% confidence level interval for the difference in means ranged from -.42 to -.12.

### *Satisfaction*

The 5-item satisfaction survey used in phase one was also used in phase two. Questions two and five were reversed coded. The overall satisfaction for phase two RNs ( $M = 103$ ) was higher than phase one ( $M = 3.96, SD = .79$ ). The expected results were that high quality agencies would have had higher satisfaction scores as seen in phase one. Among the differences noted between the phases, was the difference between high ( $M = 3.78, SD = .88$ ) and low quality agencies ( $M = 4.14, SD = .65$ ), with low quality agencies scoring higher in satisfaction. This was statistically significant as noted by an independent sample *t* test,  $t(101) = 2.37, p = .02$  with a 95% confidence level interval for the difference in means ranged from .06 to .67. As well, there was a difference in results for phase two satisfaction between proprietary ( $M = 4.43, SD = .72$ ) and non-profit agencies ( $M = 3.81, SD = .76$ ) suggesting a higher satisfaction with the former agency type. Overall in this phase, slightly more RNs (5.6%) stated that they were planning to leave their agency.

### *Further Analysis*

The results from questions two and three were counter to the literature. Further analyses were completed on the data to increase the understanding of the results. Assessing for differences in educational status, proprietary agencies still have better mean

scores over non-profit agencies. In comparing status and education (Table 11), the BSN educated RNs employed in a non profit setting were more satisfied than BSN educated RNs in the proprietary setting as well as the ADN and diploma prepared RNs in the non-profit setting. Since the results showed that low quality agencies scored higher on the attribute and satisfaction survey and that proprietary agencies score statistically better in comparison to non-profit agencies (Table 12) a regression analysis was completed (Table 13).

TABLE 11. Mean Attribute and Satisfaction Results by Status and Education (SD)

	<u>Proprietary</u> Diploma <i>n</i> = 5	<u>Non Profit</u> Diploma <i>n</i> = 13	<u>Proprietary</u> ADN <i>n</i> = 17	<u>Non Profit</u> ADN <i>n</i> = 43	<u>Proprietary</u> BSN <i>n</i> = 4	<u>Non Profit</u> BSN <i>n</i> = 33
1.	1.00 (<.01)	1.69 (.95)	1.00 (<.01)	1.12 (.32)	1.25 (.50)	1.27 (.45)
2.	1.00 (<.01)	1.75 (.62)	1.41 (.62)	1.53 (.67)	1.75 (.98)	1.74 (.74)
3.	1.80 (.45)	2.23 (1.10)	1.47 (.80)	2.26 (.79)	2.00 (1.40)	2.36 (.86)
4.	1.20 (.45)	1.92 (1.12)	1.06 (.24)	1.74 (.73)	1.25 (.50)	1.94 (.83)
5.	1.00 (<.01)	1.62 (.65)	1.06 (.24)	1.28 (.50)	1.25 (.50)	1.30 (.53)
6.	1.00 (<.01)	1.85 (.90)	1.18 (.39)	1.37 (.55)	1.50 (1.00)	1.45 (.71)
7.	1.00 (<.01)	1.62 (.65)	1.24 (.44)	1.35 (.48)	1.25 (.50)	1.33 (.48)
8.	1.40 (.55)	2.08 (.86)	1.59 (.71)	1.76 (.66)	1.25 (.50)	1.67 (.48)
9.	1.20 (.45)	1.62 (.77)	1.18 (.39)	1.53 (.70)	1.50 (1.00)	1.55 (.71)
10.	1.00 (<.01)	2.23 (.73)	1.35 (.49)	1.65 (.78)	1.75 (1.50)	1.61 (.70)
Sat. <sup>1</sup>	4.55 (.44)	3.17 (.75)	4.47 (.58)	3.92 (.68)	3.87 (1.62)	3.99 (.74)

*Note.* 1. Satisfaction.

TABLE 12. Mean Attribute and Satisfaction Results by Status

Attribute	<u>Proprietary</u> <i>M (SD)</i>	<u>Non-profit</u> <i>M (SD)</i>	<i>p</i>
1. Concern for Patient	1.04 (.19)	1.25 (.52)	.04*
2. Adequate Nurse Staffing	.61 (.83)	2.28 (.83)	<.01*
3. Supportive Nurse Manager	1.18 (.48)	1.46 (.66)	.04*
4. Working with other Nurses who are clinically competent	1.07 (.26)	1.34 (.54)	.01*
5. Flexible Work Scheduling	1.11 (.31)	1.83 (.82)	<.01*
6. Good RN – MD Relationships	1.36 (.62)	1.65 (.68)	.04*
7. Nurse Autonomy	1.18 (.39)	1.39 (.51)	.05*
8. Continued competency	1.21 (.50)	1.55 (.72)	.02*
9. Adequate Support Service	1.46 (.64)	1.76 (.63)	.04*
10. In-Service, CE Education	1.32 (.67)	1.71 (.75)	.01*
Overall Satisfaction	4.43 (.72)	3.81 (.76)	.00*

*Note.* \* $p < .05$ .

#### *Regression Analysis*

A regression was computed utilizing the mean attribute score as the dependent variable and education, status, gender, satisfaction, years of experience as an RN, years as HHC RN, age, and quality of the agency as the independent variables (Table 13). A dummy variable was imputed for education, with diploma and A.D.N. as one code and B.S.N. and M.S. RNs as another. The results show that only satisfaction, female gender, and proprietary status were significant variables that explained 42% of the variance of the mean attribute score. Therefore, the higher the satisfaction the better the mean attribute scores. As well, proprietary agencies were more likely to have better mean attribute scores. Female respondents were also more likely to rank the attributes better. These results are consistent with the findings of the independent *t*-tests. The other independent variables were not significant.

TABLE 13. Regression of Mean Attribute Scores (N = 98)

Independent Variable	$\beta$	$p$	$r^2$
Satisfaction	-.56	<.01	.34
Gender	-.22	<.01	.39
Status	-.17	.04	.42

*Note. Higher satisfaction scores have a larger mean score. Better attribute scores have a lower mean score.*

### *Summary*

Results show that there is a significant difference in the EOM scores between high and low quality agencies that is counter intuitive in relationship to the literature based on the study findings. Satisfaction in this phase demonstrated a lower mean score in agencies with higher quality, which is also counter intuitive to the literature. Further investigation of these results will be reviewed in the next section.

## CHAPTER V. IMPLICATIONS

### Introduction

The purpose of this chapter is to discuss the implications of the findings for each question. Study limitations are presented as well as recommendations for future research. Limitation and future research will be discussed in relationship to the results of phase one and two.

### Phase One

The purpose of this section is to discuss implications of the findings for the question: What do HHC nurses perceive to be the Essentials of Magnetism that allow them to produce quality patient care? The results from phase one demonstrate some similar findings between staff and HHC nurses. Current literature and the research findings are supportive of continued research of workforce issues in the home care setting.

The results of phase one show that HHC and staff RNs agree on 7 of the 10 top attributes, but HHC RNs ranked all of the attributes differently. Of greatest interest, the attribute control over nursing practice was chosen by only 13.2% of RNs as important and ranked 23<sup>rd</sup> out of the 37 items. A potential explanation of this result could include that the HHC setting facilitates more control over nursing practice than the acute care environment therefore HHC RNs do not feel that it as important as the other attributes for providing quality patient care. Research has also suggested that the HHC agencies do not provide a setting conducive to control over practice (Tullai-McGuinness, et al., 2005) which could also explain the low score.

Several other differences noted included the attribute patient is paramount was ranked the highest for HHC RNs and it was the lowest of the eight for the acute care setting. Other research in HHC supports that those RNs work and stay in this setting due to the patient centered mission (Flynn & Deatrck, 2003). In addition, working with other clinically competent RNs was ranked the highest by staff RNs, but only ranked 4<sup>th</sup> by the HHC RNs. This is may be explained by the independent nature of HHC setting as RNs practice on an individual basis, but relies more heavily on supportive managers as seen by that attribute ranking 2<sup>nd</sup> compared to the staff RNs ranking of supportive nurse manager at fourth. Again, other research in the HHC environment has recognized the high importance of supportive managers (Flynn & Deatrck, 2003). Autonomy was also ranked differently between settings, whereas acute care RNs ranked it 3<sup>rd</sup>, HHC RNs ranked it 7<sup>th</sup>. This does reflect other studies that showed similar results (Flynn, et al., 2005).

The results between the staff and the HHC RNs demonstrate not only the overarching similarities of the nursing profession but the differences between the practice settings Home health care is a dynamic and complex environment that is different than the acute care setting and research is needed to further understand those differences. The utilization of the DOM in the HHC setting has provided interesting results

#### Phase Two

The purpose of this section is to review the implications based from the results of questions two and three: What is the degree to which the Essentials of Magnetism exist within each Home Health Care agency? Moreover, is there a difference between agencies

that have high quality outcomes with those agencies that have low quality outcomes in relationship to the EOM?

The results from each question are counter to the literature. Low quality HHC agencies had better attribute scores as well as satisfaction. As well, proprietary agencies also demonstrated better mean scores for the attributes and satisfaction than non-profit agencies. Issues related around the use of the Home Health Compare measures as the outcome measures for this study may explain these results. These issues related to the Home Health Compare measures will be discussed in the following section.

#### Limitations

The results of the second phase of this study were counter to the literature. This suggests that research needs to be repeated in this area. The results suggest that the HHC EOM, while it may be a reliable indicator, it is not a valid indicator of quality patient outcomes as defined as the Home Health Compare indicators. In reviewing the design, several limitations may have contributed to the results to the counter intuitive results.

#### *Limitations in the Outcome Measure*

There are several limitations related to the outcome measures. The use and validity of the OASIS as the only source of outcomes measures for this study may have been an issue related to the results obtained. The Home Health Compare measures, as well as the OASIS, have been an area of concern in the HHC industry. Specifically, the issue is “whether these measures have been sufficiently validated to be considered as global measures of quality care rather than as indicators of potential quality problems. Understanding the magnitude of this difference is important when using these measures

to create state or national summary scores on the overall quality provided in these settings,” (Sangl, Saliba, Gifford, & Hittle, 2005, p. I 29). As well, there are other outcome measures that should be assessed beyond clinical data include patient satisfaction, staffing, and quality of life (Sangl, et al, 2005). The collection of this data would require that HHC agencies collect more data in addition to the OASIS or that CMS reevaluates what data should be mandated for collection for quality reporting.

#### *Validity of the Home Health Measures*

There are three issues with the utilization of the Home Health Compare measures as the outcome variable in this study. First, the measures posted on the Medicare web site may not be an adequate reflection of the current state of quality in the HHC agency. The scores that are posted are a compilation of one year’s worth of data that is posted and updated up to six months after that analysis. While mean percentiles take time to change, a change in a few percentiles could have an impact on whether the low or high quality agencies may actually not fit in their respective category at this time.

In addition, the Home Health Compare measures are a measure of multiple disciplines impact on the patient or a non-nurse discipline’s impact on the patient’s outcomes. The quality results could include or be only the results of care that was provided by physical, occupation, or speech therapists, nursing assistants, and social workers. The Home Health Compare indicators are not necessarily nursing sensitive and that may have contributed to the lack in consistent results described in the literature.

Third, the HHC measures may not reflect the needs of the patients that are seen today in this setting. When the OASIS was developed in the 1980’s, the goal of the

OASIS was to measure the effectiveness of the HHC agency to deter patient admissions into the nursing home. Thus, the OASIS has functionally and clinically based outcome measures as noted in Table 2. As the population has aged and chronic illness is prevalent amongst the Medicare population, the focus of care provided by skilled intermittent HHC agencies has shifted to a heavier focus on disease management of chronic illnesses such as diabetes and heart failure. The focus of outcomes should not necessarily be based on preventing a nursing home admission, but a re-hospitalization. Therefore, more focus should be based on disease or condition specific outcomes.

#### *Systems Research Organizing Model*

The utilization of the SROM as the conceptual framework for this study proved useful overall. The model provided framework for the delineation of the concepts and variables in determining the design. A stronger incorporation of organizational and nursing theory may be useful in future studies as well as the incorporation of theory related to effectiveness, outcomes, and satisfaction may provide a stronger framework for future research in this area.

One issue that may have had an impact on the outcomes were that patient characteristics were not taken into account in this study. As in all systems research, everything has an impact on each other. This includes that certain patient characteristics could have assisted in the explanation of the results obtained. Since the outcome variable may have not adequately reflected the quality of care the HHC RNs provided, an examination of patient characteristics may have explained some of the variance. Characteristics such as percentages of specific diseases, conditions, and co-morbidities,

average age, or average case weight (acuity) may have an impact on the other constructs. Future research in this area needs to include and acknowledge the impact patient characteristics may have on outcomes.

#### *Instrument*

The limitations of using the EOM for HHC may have limited the potential response. The lack of the ability for RNs to write in any items that they felt might have an impact on their ability to produce quality patient outcomes was hampered by the structure of the survey instrument. Other items specific to the setting may have a more important role on quality outcomes as determined by the HHC RN. Several participants in phase one and two wrote in that excessive paperwork/computer time was an issue with providing quality patient care.

As well, other strategies discovered in the Briggs Hospitalization study (Fazzi, 2005) such as nursing practice models and modes of care delivery may have a larger impact on quality patient care in the HHC setting. Nursing dose may be a variable of interest as the number of RN visits in relationship to other disciplines number of visits may have an impact in the provision of quality patient care.

The use of the Home Health Compare measures as the outcome variable as previously discussed is a limitation to this study as previously discussed.

#### *Sample and Representativeness*

The sample was not as matched and stratified in the analysis of phase two as it had been planned prior to data collection. Representativeness of the sample is another issue as the average response rate from the agencies in phase two was 34%. This states

that the results may not actually be reflective of the setting as much as if 50% or greater of the RNs had participated from each agency. As well, there was a lack of majority consensus on the 10 items. Only seven items were agreed upon by 50% of the respondents and of those, only five items have a two-third majority. A study with a larger sample size and a larger response rate may find different results.

### Future Research

#### *Phase One*

Future research is important to increase the understanding and knowledge of the results obtained in phase one. The next focus area for research may include a grounded theories approach that investigates the meaning of each of the organizational attributes that were chosen to represent the EOM in home care. In addition, future research may include repeating the research conducted with a larger sample size to validate the phase one findings.

#### *Phase Two*

Future research includes reviewing the high and low quality agencies Home Health Compare scores six months to one year from now to see if the agencies ranking in their respective class may have changed. In addition to the outcome measures, potential research into nursing sensitive indicators may be of greater benefit in the HHC setting in order to demonstrate the value of RNs in relationship to quality patient outcomes as well as potential differences in outcomes related to educational preparation.

Future research may investigate other potential causal relationship between these findings and the context in which HHC exists including the understanding the impact of

how government regulations such as paperwork may influence the ability of RNs to provide quality patient care. As well, research based on what HHC RNs feel prohibit them from providing quality patient care may provide more valuable insight into why the nursing shortage is worse in the HHC setting.

Research in nurse sensitive HHC outcomes may be beneficial. Medicare certified agencies collect different outcome variables based on OBQI and OBQM data, which may be beneficial to outcome research in this setting. The development of nursing sensitive indicators may assist in future research.

#### Summary

This research study has provided descriptive information for HHC RNs and agencies regarding organizational attributes, nurse satisfaction, and quality patient care. While results of phase one provide useful and promising information, more research on the impact of the EOM in relationship to quality needs to be done. A set of nursing sensitive indicators for the HHC setting needs to be developed before further research with the EOM is advanced. The development of knowledge in workforce issues in the HHC setting is years behind the acute care setting, but existing research shows hope for the future.

APPENDIX A  
NURSE DEMOGRAPHICS SURVEY

Please fill out each section of data completely and return attached to the Essentials of Magnetism survey. Thank you.

How many years of total RN experience do you have? \_\_\_\_\_

How many years of Home Health Care experience do you have? \_\_\_\_\_

What is your age? \_\_\_\_\_

What is your highest level of education?

\_\_\_Diploma \_\_\_ADN \_\_\_BSN \_\_\_MSN/MS \_\_\_Doctoral

What is your gender?

\_\_\_Female \_\_\_Male

Are you planning to stay at this job?

\_\_\_ Yes \_\_\_ No

Satisfaction Survey: Please mark next to each answer a number representing your belief.  
1= strongly disagree; 2= disagree; 3=neutral; 4=agree; 5=strongly agree

\_\_\_ Generally speaking, I am very satisfied with this job.

\_\_\_ I frequently think of quitting this job.

\_\_\_ I am generally satisfied with the kind of work I do in this job.

\_\_\_ Most people on this job are very satisfied with the job.

\_\_\_ People on this job often think of quitting.

*Note.* Satisfaction survey adapted from Delaney & Huber (1996).

APPENDIX B  
PHASE ONE SURVEY

Please read the whole list first. Then, **Check** the ten (10) items **most important to you in giving quality care.**

- \_\_\_ 1. Low turnover of RNs compared to national average.
- \_\_\_ 2. High importance and status of nurses in this agency.
- \_\_\_ 3. The highest nurse executive has a strong position in the hierarchy of the agency.
- \_\_\_ 4. Well-prepared and qualified nurse executives.
- \_\_\_ 5. Concern for the patient is paramount in this agency.
- \_\_\_ 6. Control over nursing practice and practice environment.
- \_\_\_ 7. An agency is always willing to try new things.
- \_\_\_ 8. Good RN-MD relationships, established mechanisms of communication.
- \_\_\_ 9. Low use of pool, traveling, or registry nurses to equalize staffing within the agency.
- \_\_\_ 10. RN to LPN ratio is reasonable.
- \_\_\_ 11. Participative management style.
- \_\_\_ 12. Management development is emphasized.
- \_\_\_ 13. Decentralized organizational structure; i.e., structural flatness
- \_\_\_ 14. Nurse involvement in the overall administration.
- \_\_\_ 15. Adequate nurse staffing.
- \_\_\_ 16. Problems are solved by getting a few people together, swift action, and follow-up.
- \_\_\_ 17. Flexible work scheduling, self-scheduling.
- \_\_\_ 18. Competence-based clinical ladders.
- \_\_\_ 19. Working with other nurses who are clinically competent.
- \_\_\_ 20. RNs are salaried (not paid hourly).
- \_\_\_ 21. People are very enthusiastic about their work.
- \_\_\_ 22. High productivity and high performance expectations.
- \_\_\_ 23. Shared governance model.
- \_\_\_ 24. Salary decompression (i.e., the ceiling of salaries for experienced nurses is raised).
- \_\_\_ 25. Self contained units (i.e., specialty units such as an IV team, Pediatric team).
- \_\_\_ 26. In-service/CE Education opportunities and support for education are available.
- \_\_\_ 27. Preceptorships/internships are available for new graduates/new hires.
- \_\_\_ 28. Supportive nurse managers and supervisory personnel.
- \_\_\_ 29. Availability of specialist advise such as advanced practice nurses/CNSs.
- \_\_\_ 30. Nurse autonomy and accountability in making decision within area of competence.
- \_\_\_ 31. Professional practice models for delivery of care such as primary nursing.
- \_\_\_ 32. Adequate support services (other departments such as intake, pharmacy, HME).
- \_\_\_ 33. Emphasis on the teaching responsibilities of staff.
- \_\_\_ 34. Planned orientation of staff/new hires.
- \_\_\_ 35. Continued competency in nursing practice is stressed.
- \_\_\_ 36. Emphasis on career development and career opportunities.
- \_\_\_ 37. RNs are responsible for the work of the aides and LPNs.

*Note.* EOM instrument adapted from Kramer & Schmalenberg (2004).

APPENDIX C  
PHASE TWO SURVEY

For each item in this section, please indicate the extent to which you agree that the following items *are present in your current job*. Indicate your degree of agreement by circling the appropriate number.

<i>Present in Current Job</i>	Strongly Agree	Somewhat Agree	Somewhat Disagree	Strongly Disagree
1. Concern for the patient is paramount in this agency.	1	2	3	4
2. Good RN-MD relationships, established mechanisms of communication.	1	2	3	4
3. Adequate nurse staffing.	1	2	3	4
4. Flexible work scheduling, self-scheduling.	1	2	3	4
5. Working with other nurses who are clinically competent.	1	2	3	4
6. Supportive nurse managers and supervisory personnel.	1	2	3	4
7. Nurse autonomy and accountability in making decision within area of competence.	1	2	3	4
8. Adequate support services (other departments such as intake, pharmacy, HME).	1	2	3	4
9. Continued competency in nursing practice is stressed here.	1	2	3	4
10. In-service/CE Education opportunities and support for education are available.	1	2	3	4

APPENDIX D  
HUMAN SUBJECTS APPROVAL

Human Subjects Protection Program  
<http://www.irb.arizona.edu>



1350 N. Vine Avenue  
P.O. Box 245137  
Tucson, AZ 85724-5137  
(520) 626-6721

6 January 2006

Jennifer Mensik, Ph.D. Candidate  
Advisor: Joyce Verran, Ph.D.  
College of Nursing, Room 429  
PO Box 210203

**RE: DESCRIBING ESSENTIALS OF MAGNETISM AND QUALITY IN HOME HEALTH**

Dear Ms. Mensik :

We received documents concerning your above cited project. Regulations published by the U.S. Department of Health and Human Services [45 CFR Part 46.101(b)(2)] exempt this type of research from review by our Institutional Review Board. **Note: Copies of your disclaimer forms, with IRB approval stamp affixed, are enclosed for duplication and use in enrolling subjects.**

**Please be advised that clearance from academic and/or other official authorities for site(s) where proposed research is to be conducted must be obtained prior to performance of this study. Evidence of this must be submitted to the Human Subjects Protection Program office.**

Exempt status is granted with the understanding that no further changes or additions will be made either to the procedures followed or to the consenting instrument used (copies of which we have on file) without the review and approval of the Human Subjects Committee and your College or Departmental Review Committee. Any research related physical or psychological harm to any subject must also be reported to each committee.

Thank you for informing us of your work. If you have any questions concerning the above, please contact this office.

Sincerely,



Rebecca Dahl, R.N., Ph.D.  
Director  
Human Subjects Protection Program

cc: Departmental/College Review Committee

Human Subjects Protection Program  
<http://www.irb.arizona.edu>

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16 February 2006

Jennifer Mensik, Ph.D. Candidate  
Advisor: Joyce Verran, Ph.D.  
College of Nursing, Room 429  
PO Box 210203

**RE: DESCRIBING ESSENTIALS OF MAGNETISM AND QUALITY IN HOME HEALTH**

Dear Ms. Mensik :

We received your 9 February 2006 letter concerning your above cited project. Change includes expansion of Phase I recruitment to include all RNs versus only RNs with 5 years or greater experience. Approval for this change to your **exempt** project is granted effective 16 February 2006.

Please be advised that **clearance from academic and/or other official authorities for site(s) where proposed research is to be conducted must be obtained prior to performance of this study. Evidence of this must be submitted to the Human Subjects Protection Program office.**

Continued exempt status is granted with the understanding that no further changes or additions will be made either to the procedures followed or to the consenting instrument used (copies of which we have on file) without the review and approval of the Human Subjects Committee and your College or Departmental Review Committee. Any research related physical or psychological harm to any subject must also be reported to each committee.

Thank you for informing us of your work. If you have any questions concerning the above, please contact this office.

Sincerely,



Rebecca Dahl, R.N., Ph.D.  
Director  
Human Subjects Protection Program

cc: Departmental/College Review Committee

APPROVED BY UNIVERSITY OF AZ IRB.  
THIS STAMP MUST APPEAR ON ALL  
DOCUMENTS USED TO CONSENT SUBJECTS.  
DATE: 1/6/10 C

#### SUBJECT'S DISCLAIMER FORM

Project Title: Describing Essentials of Magnetism and Quality in Home Health

You are being invited to participate voluntarily in the above-titled research project. The purpose of this project is to identify the essentials of magnetism in home health care and its relationship to home health quality measures. The essentials of magnetism have been recognized as organizational attributes that allow nurses to provide quality patient care and improve the retention of staff. You are eligible to participate because you are an RN employed in an intermittent Medicare certified Home Health agency. A total of 50% of the eligible individuals from this agency may participate in this study. Overall, a total of 200 individuals will participate at multiple home health agencies from across the United States.

If you agree to participate, the following information will be asked in this study which will last up to 30 minutes: You will be asked to fill out the demographic/satisfaction survey completely. Then, you will be asked to read the 37-item instrument labeled Essentials of Magnetism. You will be asked to check the top ten (10) items that you feel allow you to provide quality patient care. You may choose not to answer some or all of the questions.

A portion of the participants are needed to retake the survey in two (2) weeks. This will assist with determining the reliability of the survey results. You may choose to participate in the retake of the survey. If you wish to participate, please fill out your name and contact information on the appropriate page. This will allow the Principal investigator to get the second survey to you. Your name will be destroyed once the second round of surveys are returned.

You may withdraw from the study at any time. There are no known risks from your participation and no direct benefit from your participation is expected. There is no cost to you except for your time and you will not be compensated for your participation.

Only the principal investigator will have access to the name and the information that you provide. In order to maintain your confidentiality, your name will not be revealed in any reports that result from this project. Interview information will be locked in a cabinet in a secure place. All results will be kept confidential. Surveys will be kept locked with the Principal Investigator until the end of the study. At that time, the surveys will be destroyed. The results from aggregated data will be shared with your home health agency. Individual responses will not be shared with any of the participating agencies.

You can obtain further information from the principal investigator Jennifer Mensik RN, PhD Candidate at (602) 695-0063. If you have questions concerning your rights as a research subject, you may call the University of Arizona Human Subjects Protection Program office at (520) 626-6721. (If out of state, use the toll-free number 1-866-278-1455.)

By participating in this study you are agreeing to the use of the data for research purposes

APPROVED BY UNIVERSITY OF AZ IIRL.  
THIS STAMP MUST APPEAR ON ALL  
DOCUMENTS USED TO CONSENT SUBJECTS.  
DATE: 11/6/06

#### SUBJECT'S DISCLAIMER FORM

Project Title: Describing Essentials of Magnetism and Quality in Home Health

You are being invited to participate voluntarily in the above-titled research project. The purpose of this project is to identify the essentials of magnetism in home health care and its relationship to home health quality measures. The essentials of magnetism have been recognized as organizational attributes that allow nurses to provide quality patient care and improve the retention of staff. You are eligible to participate because you are an RN employed in an intermittent Medicare certified Home Health agency. A total of 50% of the eligible individuals from this agency may participate in this study. Overall, approximately 200 individuals will participate at 20 home health agencies from across the United States.

The following information describes your participation in this study which will last up to 30 minutes: You will be asked to read and agree with this disclaimer form. You will be asked to fill out the demographic/satisfaction survey completely. Then, you will be asked to read the 10-item instrument labeled Essentials of Magnetism. You then will be asked to rank each item on a scale of 1 to 4 based on the degree of disagreement or agreement that that item exists within your home health care agency.

You may withdraw from the study at any time. There are no known risks from your participation and no direct benefit from your participation is expected. There is no cost to you except for your time and you will not be compensated for your participation.

Only the principal investigator will have access to the name and the information that you provide. In order to maintain your confidentiality, your name will not be revealed in any reports that result from this project. Interview information will be locked in a cabinet in a secure place. All results will be kept confidential. Surveys will be kept locked with the Principal Investigator until the end of the study. At that time, the surveys will be destroyed. The results from aggregated data will be shared with your home health agency. Individual responses will not be shared with any of the participating agencies.

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