THE IMPACT OF EMOTIONAL INTELLIGENCE IN NURSING LEADERSHIP ON THE NURSING PRACTICE ENVIRONMENT

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Abstract

Regardless of the economic landscape currently impacting the healthcare industry, retention of nursing staff remains a priority. While the nursing supply and demand is multifaceted and complex, solutions to these issues are equally as multifaceted and complex. Realizing the importance of organizational culture and climate as it relates to the nursing practice environment provides insight into areas requiring attention. Attributes of organizational culture and climate have been posited to impact satisfaction and commitment. Specific to the nursing arena, attributes that influence culture and climate include ability to be innovative, contribute to decisions regarding work related issues, and relationships with unit leaders. These attributes of the nursing practice environment are interrelated and influence other aspects of the culture and climate. The leaders' ability to recognize and develop relationships with staff remains a critical skill. Emotional intelligence has been recognized as a leadership competency, but not specifically within nursing as it relates to the nursing practice environment. This study sought to determine if a relationship existed between the emotional intelligence of nursing leaders in one identified state and the nursing practice environment. Additionally, a relationship between the emotional intelligence of the nursing leader and the Magnet designation status of the organization was assessed. A positive relationship was found between the subscales of emotional intelligence and the nursing practice environment. A relationship between the overall emotional intelligence score and the organization's Magnet journey was not identified. The development of EI in the nursing leaders appears to impact the nursing practice environment. As nursing leaders create and strive for enhanced leadership skills, the development of emotional intelligence skills has

the potential to impact the overall nursing practice environment. The nursing leadership professional development specific to the four domains of emotional intelligence will impact the practice environment for the bedside nurse. With a positive practice environment, the retention of skilled qualified professional nurses will be enhanced. While many facets of the organizational culture and climate are not able to be directly addressed, the contribution of the leader should be addressed as one of the nursing retention strategies.

Dedication

I would not have been able to successfully complete this professional goal without the support of my husband, children and friends. I realize the multiple sacrifices of all those around me during this four-year journey. I appreciate all the words of encouragement and gentle pushes when I needed them most.

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CHAPTER 1. INTRODUCTION

Introduction to the Problem

The ever-changing dynamics within the health care arena has far-reaching impacts. Acute care hospitals will be required to continually seek innovative and efficient methods of delivering quality patient care. Central to this care delivery is the nursing staffs, who provide a significant portion of the direct patient care. The Institute of Medicine (IOM, 2001) has identified six aims for improving patient care, while the National Quality Forum has identified 15 nursing sensitive indicators (National Quality Forum, 2007). Attention to the unique contribution of nurses in the hospital setting has been recognized as a deficit (National Quality Forum, 2007). According to the National Quality Forum (2007), the sheer number of nurses and their primacy in care giving are compelling reasons for measuring their contributions to patient's experiences and the outcomes that are attained. The work environment has been identified as a contributing factor for achieving specific nursing outcomes. According to Pross (2010), a healthy work environment requires strong nursing leadership at all levels of the organization, but especially at the point of care delivery.

The focus of this study will be to determine the relationship between the emotional intelligence of the nurse leader and the impact on the nursing practice environment. A healthy practice environment requires the support of the nurse leader and has been recognized as one of eight essentials of a health work environment (Schmalenberg & Kramer, 2009). The setting and the context of the study was the acute care setting in a hospital with nursing leadership, excluding 24-hour units residing in the hospital environment such as skilled nursing units.

Emotional intelligence is one facet of nursing leadership attributes. It is unknown the impact of emotional intelligence in the nurse leader and the extent or importance in the nursing practice environment. It is recognized that the practice environment is multidimensional and multifaceted. This study sought to determine one aspect of the leadership impact within the practice environments.

Background of the Study

The supply and demand for professional nurses has been cyclical throughout the past decades. Nursing shortages have occurred with varying degrees of severity. Presently, it has been predicted that a worsening nursing shortage looms on the horizon with a nursing deficit of 260,000 registered nurses by 2025 (Rosseter, 2010). These projections are twice as large as any nursing shortage experienced in this country since the mid-1960s (Rosseter, 2010). As a result of the current economic circumstances, there has been a slight reprieve from the anticipated number of nurses leaving the nursing profession (Buerhaus, Auerbach, & Staiger, 2009). This is viewed as a short term situation with the next decade's predictions returning to all new highs.

The supply aspects of the supply/demand equation are varied. The number of nurses being accepted into nursing programs, along with those reaching retirement age is impacting the availability of practicing professional nurses. The established nursing programs are finding it difficult to meet the required student to faculty ratios. As a result, qualified nursing candidates are not being accepted into nursing programs. According to Rosseter (2010), 54,991 qualified applicants from baccalaureate and graduate nursing programs in 2009 were denied access due to insufficient number of faculty, clinical sites/classrooms, and budgetary constraints. In a survey conducted by the American Association of Colleges of Nursing (AACN), two thirds of the

nursing schools responding indicated that faculty shortages was a reason for not accepting qualified individuals (Fang & Tracy, 2009). Compounding the faculty issue is also the limited access of qualified students being prepared as faculty, projected retirement, and unfilled faculty positions (Rosseter, 2010).

Competition for talented candidates remains an issue that the nursing profession must address. The work/life balance and work environment are considerations that have been identified as talented individuals make career decisions (Rosseter, 2010). Career opportunities abound for talented individuals. The 1970's presented limited career opportunities compared to the wide array of choices available today (Murray, 2002). Changes in the work place and health care downsizing or reorganizations have resulted in a lingering negative image for potential nursing professionals (Murray, 2002). According to Williams (2001), the workplace environment, income, future prospects, physical demands, job security and stress, and length of work-day resulted in nursing being rated 137th most desirable job out of 250 professions. There appears to be a dichotomy between the public perception of a nurse and nursing as a profession (Murray, 2002).

Predicted baby boomer retirement was anticipated to negatively impact the number of practicing hospital nurses. The current economic downturn has altered the retirement trends for many professional nurses. The present circumstances have resulted in nurses working longer than expected. According to Buerhaus (2010), an incredible, unprecedented rise in hospital employment of nurses has been noted due to the recession. A concern regarding the baby boomer nurses who remain employed is that this group of professional nurses will be the first group to exit when financial circumstances improve (Buerhaus, 2010). Hospitals have the ability to be critical regarding the talent that is being hired, although these circumstances will not last.

As a result, it remains imperative that hospitals continue to focus on the workplace environment and address the present nursing concerns (Buerhaus, 2010).

Patient conditions and increased health expectations are increasing the demand for quality nursing care. The demands for patient care are increasing as a result of multiple and compounded issues. These issues include increased demand for health care services from baby boomers, functional care for aging geriatric population, and multisystem complex medical needs (Fox & Abrahamson, 2009). According to Dunham (2009), 78 million baby boomers will be entering retirement age, thus creating increased demands for both healthcare and long term care. With the increase in volume, the complexity of care increases with the current aging population. The combination of increased volumes and expanded healthcare requirements strains the current nursing workforce (Dunham, 2009). Chronic care in the aging population has resulted in time constraints and added expense required for necessary care. According to Lopez (2007), this is the perfect storm regarding the impending nursing shortage.

Statement of the Problem

Recognizing the impending implications of the predicted nursing shortage provides opportunity for nursing leaders. Realizing that the supply of new nurses is limited, coupled with the decreased experience level within nursing, retention of the current skilled nursing force is imperative. Mounting evidence indicates that nursing turnover is attributed to adverse working conditions and low nursing satisfaction (McCusker, Dendukuri, Cardinal, Laplante, & Bambonye, 2004). Enhancements to the practice environment contribute to retention of nursing staff. The nursing leader's contribution to the nursing practice environment has been noted to be important specifically within the nursing satisfaction arena. The potential reasons for nursing

dissatisfaction are not singular, but exist in a web of dysfunction which complicates matters (Fox & Abrahamson, 2009).

In order to understand the overall or global issues surrounding the nurse' perceptions of the work environment, focused attention to each contributing issue must occur. The nursing leader's response to situations and staff influences the staff's response to those situations. The abilities and skills of each nursing leader impacts responses to circumstances. According to Lake (2002), the nursing practice environment reveals the hospitals managers' approach to resolving the dilemmas of organizations and work. The manager has the ability to positively or negatively impact the practice environment.

The approach that the nurse manager uses for resolving dilemmas will vary depending on the skill and expertise of the individual manager. As with cognitive intelligence, emotional intelligence varies between individuals. It is not known if overall emotional intelligence levels of the nurse manager are able to create different types of nursing practice environments. Additionally, it is not known if one dimension of emotional intelligence results in differing types of practice environments. The relationships between emotional intelligence aspects and the nursing practice environments have not been established.

Purpose of the Study

The purpose of this study was to understand the impact of or if any relationships existed between the emotional intelligence level of nursing leaders and the nursing practice environment. This study sought to determine if any of the four dimensions of emotional intelligence have an impact on the nursing practice environment that differs from other dimensions. Two survey instruments were used to obtain emotional intelligence and nursing practice environment

information. Relationships between the EI subscales to the practice environment were assessed, along with overall EI composite score compared to an organization's Magnet status journey.

Magnet status designates a culture of nursing excellence where nursing staff has lower turnover, higher patient involvement, and nursing leaders value the input from the staff nurses (Summer, 2008). Differences between these elements were assessed in an effort to understand aspects of the nursing landscape.

Rationale

Leaders have a unique opportunity to influence the work place setting. Literature supports that effective management characteristics and leadership skills in the hospital setting improve job satisfaction, sustain commitment to the organization, and enhance retention of nurses (Boyle, Bott, Hansen, Woods, & Taunton, 1999). Research suggests a positive relationship exists between emotional intelligence (EI) and leadership effectiveness (Goleman, 1998). Emotional intelligence has been demonstrated to help a leader build coherent, effective, and highly motivated teams (Prati, Douglas, Ferris, Ammeter, & Buckley, 2003).

Working relationships among nurses have been identified as a significant factor contributing to nursing retention. A study on the importance and values of nurses found that supervisory relation was the highest ranked value overall, which supports the correlation between commitment and positive relationship with supervisor (Corser, 1998). The type of relationships formed between a nursing leader and staff will contribute to the overall satisfaction of the staff. The nursing leader who is able to create and maintain a relationship that is positive will be rewarded with a nursing staff that chooses to stay (Neuhauser, 2002). Higher emotional

intelligence in the nursing leader will enhance the nursing leader's ability to build relationships that are individualized and personal with staff working in that environment.

The practice environment is a reflection of the visible and invisible elements of the nursing culture. Work cultures and climates are influenced by workload, relationships, environmental turbulence, and management styles (Fletcher, 2001). Research reveals that a better practice environment increases the level of job satisfaction and encourages nurses to remain in the workplace (Aiken & Patrician, 2000; Lake, 2002). The American Nurses Association supports the premise that job satisfaction and practice environments are critical for addressing the nursing shortage (Liou & Cheng, 2009).

Research Question

The research questions guiding this study include

1. What is the relationship between the emotional intelligence level of nursing leaders and the nursing practice environment?
2. What is the difference between the emotional intelligence level of the nursing leaders for Magnet designated organizations, organizations on the Magnet journey and non-Magnet designated organizations?

The independent variables for this study were the overall EI score and the four subscale scores from the Wong and Law Emotional Intelligence Scale (WLEIS). The dependent variable was obtained using the Practice Environment Scale-Nurse Work Index (PES-NWI) tool. Magnet status information was asked in order to determine differences in emotional intelligence levels of nurse leaders for Magnet, organizations working towards this designation and non-Magnet designated organizations.

Significance of the Study

Emotional intelligence research remains limited specifically with nursing leaders. Understanding the role of emotional intelligence in the leadership arena of nursing will provide insight into leadership development. The relationship of emotional intelligence and the impact to the practice environment of the nursing unit has potential benefits for enhancing the staff nurses work place. The four dimensions of emotional intelligence provide an aspect of emotional intelligence which influenced relationships with others. The attributes of these dimensions vary with each individual thus creating an opportunity for specific growth in necessary dimension.

Realizing the importance that relationships have for creating or enhancing practice environments, understanding how to foster relationships within the nursing arena is critical. Limited research has been undertaken regarding the relationship between emotional intelligence and leadership effectiveness in the nursing practice arena (Iordanoglou, 2007). Enriching the knowledge base regarding nursing leaders may provide insights into avenues for leadership recruitment, orientation, and ongoing development.

Additionally, understanding the influence that nursing leadership must exhibit in order to build and sustain a positive practice environment is necessary. Retention of skilled and experienced professional nurses remains a priority of nursing leaders and organizations. This study sought to become familiar with the relationship of emotional intelligence and the nursing leadership attributes recognized to impact practice environment and culture. Law, Wong, Huang, and Li (2007) posit "employees who are intelligent about their emotions will be more efficient and effective in their interactions with the work environment and with their coworkers" (pp. 54-55).

Definition of Terms

Acute Care Setting. A hospital setting that provides either inpatient or 24-hour observation short stays services. The care delivery is episodic, while assessing, diagnosing, and treating health-related issues that cannot be treated in the outpatient setting. Skilled nursing units may reside within a hospital structure, but will not be included.

Emotional Intelligence (EI). An overall measure of a set of interrelated abilities using a four-dimensional constructs (Law, Wong, Huang, & Li, 2007).

Self emotional appraisal (SEA). Appraisal and expression of emotion in one's self, which relates to an individual's ability to understand his/her deep emotions and to be able to express emotions naturally (Law, Wong, Huang, & Li, 2007).

Other's emotional appraisal (OEA). Appraisal and recognition of emotions in others, which relates to an individual's ability to perceive and understand the emotions of the people around them (Wong & Law, 2002).

Regulation of emotion (ROE). Regulation of emotion in one's self, which relates to the ability of a person to regulate his or her emotions, enabling better control of emotions (Wong & Law, 2002).

Use of emotion (UOE). Use of emotion to facilitate performance, which relates to the ability of a person to make use of emotions by directing them towards constructive activities and personal performance (Law, Wong, Huang, & Li, 2007).

Magnet Designation. A designation awarded to hospitals that have created an environment that supports nursing practice and focuses on professional autonomy, decision making at the bedside, nursing involvement in determining the nursing work and nursing leadership development (Lifespan, 2010).

Nursing Leader. A role that manages, directs, and is accountable for nursing related activities on a 24/7 basis. The role titles might include those of manager, director, vice president or chief nursing officers (CNO). The nursing positions are able to contribute to the decisions that directly impact the nursing staff.

Nursing Practice Environment. The organizational characteristics of a work setting that facilitate or constrain professional nursing practice (Lake, 2002).

Organizational Climate. The employees' perception of the impact of the work environment on their own well-being (Denison, 1993). The perceptions become the collective reflection of the employees' experience of the organizational culture (Schneider, Brief, & Guzzo, 1996).

Organizational Culture. A pattern of basic assumptions that a group invents, discovers, or develops in learning to cope with the problems or external adaptation and internal integration (Schein, 1986). These assumptions and behaviors are taught to new members as a way to correctly think and feel. The assumptions, beliefs, and values are the foundational organizational concepts (Sackmann, 1992).

Assumptions and Limitations

This particular study assumed that those nurses that responded to the survey were in leadership positions. Using a random sampling technique, the potential existed that respondents might participate while not being employed as a nurse leader. Utilizing the state's nursing leadership association's roster assumed that the majority of members were employed in nursing leadership roles. The state's roster included the current position so those not in leadership roles were not solicited for participation. The risk remained that job titles do not reflect the role being performed in the current positions.

It is important to realize the limitation of any particular research study. This study had several identified limitations including random sampling and bias, self-reporting measurement tools usage, generalizability, and geographical nuances. According to Leedy and Ormrod (2010), bias is any influence, condition, or set of conditions that singly or in combination distort the data.

Random sampling and bias may limit the generalizability of the results. The initial sampling of the identified state nurse leaders might not be representative of the nursing leaders throughout the industry as those involved in professional organizations may differ from those not actively involved with professional affiliations. "Random sampling can be an obvious source of bias" (Swanson & Holton, 2005, p 52). Additionally, the computerized format for data collection may bias those leaders that have limited computer skills.

Self-reporting tools have not been selected as the primary choice for abilities testing. While the definitions of EI continue to evolve, EI is defined by some as an abilities test (Law, Wong, & Song, 2004). Abilities are often tested by observations as opposed to self-reports. Observation testing has been noted to vary with experiential and cultural differences (Law, Wong, Huang, & Li, 2007). It has been recognized that the potential for participants' incorrect self-perceptions, social desirability or positive affectivity may occur with the use of self-reported tools (Law, Wong, Huang, & Li, 2007). The advantages of this type of tool for measuring EI include avoiding possible assessment clues or methods to get the correct answer because they ask the respondent to make direct judgments (Law, Wong, Huang, & Li, 2007).

The original testing for the Wong and Law Emotional Intelligence Scale (WLEIS) was with native Asian participants. Since that time, continued use of the tool has been gaining momentum, but that original development and testing might alter results with other cultural

samples. Cross cultural generalizability of results has been identified as a limitation (Wong & Law, 2002). It is the assumption of the authors that this tool with the four dimensions of EI as presented should not vary across cultures (Law, Wong, & Song, 2004). However, the authors do identify that individual differences may vary as a result of culture.

Geographical differences may be a limitation regarding the local standards of nursing practice. While standards of practice are provided by professional organizations, local differences are recognized and accepted. The midwestern sample may demonstrate geographical differences which will impact generalizability for all nursing leaders.

Conceptual Framework

This model is a four dimensional construct that views EI as an overall measure of a set of interrelated abilities (Law, Wong, Huang, & Li, 2007). The four dimensions portray abilities that are demonstrated by the individual such as sensing and acknowledging emotions in self and others and understanding how to use and regulate the recognized emotions. Davies, Stankov, and Roberts (1998) conclude that each of the dimensions contributes to the broad overall emotional intelligence level.

Lake (2002) was instrumental in identifying the elements of the practice environments focusing on the nursing work index. Those organizations deemed to have a culture of nursing excellence were studied to identify integral elements. The Nursing Work Index was created, which was modified to create the Practice Environment Scale of the Nursing Work Index (PES-NWI). This scale has five subscales which range from an organizational perspective to immediate nursing-unit context (Lake, 2002). The hospital wide categories, Nursing Foundations for Quality of Care and Nurse Participation in Hospital Affairs, reflect organizational

environments, while the Nurse Manager Ability, Leadership, and Support, Staffing and Resource Adequacy, and Collegial Nurse-Physician Relations are more focused at the unit level (Lake, 2002). The ultimate goal for Lake's efforts is to "create and sustain practice environments that will facilitate professional nursing practice, enhance the quality of patient care, and improve outcomes for both nurses and patients" (Lake, 2002, p. 187). See Appendix A.

Organization of the Remainder of the Study

The remaining sections of this research study have been divided into four additional chapters. Chapter 2 focuses on the review of literature pertaining to organizational culture, climate and practice. Emotional intelligence work includes seminal, research, and nursing specific work. Chapter 3 discusses the design and methodology for this study. Chapter 4 will present the data pertaining to the study, with Chapter 5 sharing recommendations for future research.

CHAPTER 2. LITERATURE REVIEW

Introduction

Organizational culture, while repeatedly used in recent literature remains an elusive but interesting concept. It was identified in the 1980s and continues to be true today, organizational culture lacks a consistent and standardized definition (Deshpande & Webster, 1989; Casida & Pinto-Zipp, 2008). Culture has been described as providing meaning for both internal and external events (Burke & Litwin, 1992). Organizational culture has been used as a synonym for culture, management style, change management, and organizational climate (Scott-Findaly & Estabrooks, 2006). A review of organizational culture definitions and frameworks will be presented in order to more fully understand the acceptance of organizational culture as an entity.

Building upon previous work from both anthropology and sociology, organizational culture has been recognized as a dominant factor affecting multiple aspects of an organization (Mahal, 2009). According to Harris and Ogbonna (2002), the cultural concept remains pervasive within managerial, strategic, and marketing arenas. These fields have recognized, embraced, and incorporated the concept of culture into business practice (Harris & Ogbonna, 2002). Regardless of the origin or the utilization of the culture concept, culture is broadly understood as a set of tacit rules and procedures that inform organization members on what and how to act under a variety of undefined situations (Mavondo & Farrell, 2003). Scholars from different fields of organizational research have adopted the concept as a central theme of theorizing (Harris & Ogbonna, 2002). According to Lewis (2002), "culture has proven itself to be an enduring concept that, as it has travelled many paths in the past, will travel many different paths in the future" (p. 285).

Definitions of Organizational Culture

Polarized definitions of culture exists between the more familiar and popularized versions. One end of the spectrum includes the understanding that culture is something an organization has or possesses while the opposing perspective is that culture is what an organization is (Deshpande & Webster, 1989; Knights and Willmott, 1987). An alternative approach to culture is to differentiate between the individual and the organization. Regardless of the premise on which the definition was derived, the various definitions address both understanding and behaviors.

Schein's (1986) definition of organizational culture has become a recognized source for defining culture. His approach is multilayered and emphasizes that "culture is a deep phenomenon, which is merely manifested in a variety of behaviors" (Schein, 1986, p. 30). For any given group or organization,

> Culture is the pattern of basic assumptions that the group has invented, discovered or developed in learning to cope with its problems of external adaptation and internal integration, and that has worked well enough to be considered valid, and, therefore, to be taught to new members as the correct way to perceive, think and feel in relation to those problems (Schein, 1986, p. 31).

These behaviors provide a mechanism for addressing situations and if successful, these behaviors become the anticipated actions. As solutions are accumulated to various problems that are both external tasks in business environments and internal tasks of organizing self and learning to work with others, patterns for thinking, perceiving, and feeling are developed and meaning is provided for daily events (Schein, 1986).

Three levels have been delineated to include artifacts, which are visible, values, which are not visible, along with basic assumptions, which are at the core of culture formation (Schein, 1986). These elements are the reflections of a social unit's ideology or philosophy, and form the underlying conceptual categories and assumptions (Moran & Volkwein, 1992). The levels and basic assumptions become the *essence of culture* and by treating values and behaviors as observed manifestations of the *culture essence* (Moran & Volkwein, 1992). This definition aligns with the behaviorist approach of organizational theory (Yahyagil, 2006).

According to Deshpande and Webster (1989), "culture is a set of shared assumptions and understandings about organizational functioning" (p. 5). This definition focuses on the differences between the individual and the group. Culture assumes a historical perspective providing explanations and rationale for actions. The history, norms and values that members believe underlie organization climate and the meanings organizational members share about the organization's imperatives portray culture (Deshpande & Webster, 1989). "Culture is the evaluations people make of the social context of the organization that guides the behaviors" (Deshpande & Webster, 1989, p. 5).

Expanding on the premise of individual versus organization, Moran and Volkwein (1992) posit that culture should be seen as those products of mind, which represent significant symbols that convey a system of shared meaning to group members. "Cultures do not exist in the cognitive processes of individuals but in the interactions among individuals" (Moran & Volkwein, 1992, p. 28). Cultures provide structure to meaning through which human beings give shape to the experience. It is the forum for determining meaning and actions in response to situations. While the individual meaning is recognized, it is the meaning applied collectively that determines an organizational culture.

Organizational Culture Perspectives

Culture as a Variable or Root Metaphor

Seeking to understand the relationship between culture and organizations has provided opportunity for reviewing the assumptions regarding differing views of culture. Smircich (1983) has identified five content areas where organization and culture intersect creating a framework for studying organizational culture. There five content areas include comparative management, corporate culture, organizational cognition, organizational symbolism, and unconscious processes and organization. The mode of inquiry is a defining attribute between the five areas. Culture is a variable in the first two content areas, either an independent/dependent variable or an external/internal variable (Smircich, 1983). The remaining three content areas are root metaphors for conceptualizing organization (Smircich, 1983).

The first theme is comparative management or cross-cultural and addresses the variation in managerial and employee practices and attitudes (Smircich, 1983). Culture is an independent variable using this approach to understanding as the organization is impacted through the membership and the collective beliefs. According to Smircich (1983), its presence is believed to be revealed in the patterns of attitudes and action of individual organization members. Corporate culture is the other variable and identifies the need for organizations to recognize that the organization is a culture producing phenomena (Tichy, 1982). Culture is the social or normative glue that holds an organization together (Tichy, 1982). Culture becomes the variable in this content area as specific concentration regarding how to mold and shape the internal culture to change culture, consistent with administrative purposes (Smircich, 1983).

These two content areas while differing in focus result in similar outcomes as a result of relationships formed. "Both approaches share the conception of organizations as organism,

existing within an environment that presents imperative for behavior" (Smircich, 1983, p. 347). In the first content area, culture is part of the environment and is seen as a determining force, while the latter example presents culture as a result of human enactment (Smircich, 1983). Relationships are integral with both areas and identify the concept that organizations can be managed. These support the premise that culture is something an organization has.

Moving towards the premise that culture is something an organization is creates an opportunity for the remaining three content areas. According to Smircich (1983), culture as a root metaphor promotes a view of organizations as expressions or visuals. Within the premise of culture as a root metaphor, the three content areas differ depending on the area of attention. Organizational cognition notes that culture is a unique system for perceiving and organizing material, things, and emotions (Smircich, 1983). Organizational symbolism supports the beliefs that cultures are systems of shared symbols and meanings and patterns (Manning, 1979). The focus with this content area is how the individual interprets and understands their experience and how these interpretations relate to actions (Smircich, 1983). Lastly, culture may be viewed as an expression of unconscious psychological processes (Smircich, 1983). This area addresses the issues of problems that are solved as a result of patterns being established (Smircich, 1983).

Using culture as a root metaphor allows for all three content areas to have human expression as a consideration. The focus of culture as a variable frames the attention towards what the organization accomplished and how it was accomplished. According to Smircich (1983), "culture as a root metaphor is concerned with how is organization accomplished and what does it mean to be organized?" (p. 353).

Cultural Variations

Assumptions, beliefs, and values continue to be a foundational element when addressing cultures (Sackmann, 1992). In an effort to provide a fundamental or generic framework, Sackmann (1992) identified three perspectives that integrated the attributes of culture into the actions of those involved. "Comparing expressed ideas and actual practices as perceived by others can provide valuable information about the world view of organizational members and its degree of overlap with reality as perceived or experienced by others" (Sackmann, 1992, p. 140). This perspective includes the use of artifacts, along with information obtained to "triangulate data" (Sackmann, 1992, p. 140).

The three perspectives include holistic, variable, and cognitive elements. The holistic perspective incorporates both cognitive and behavioral patterns of culture (Sackmann, 1992). Central to this perspective is the realization that tradition and history contribute to values shared. The second perspective is variable. This perspective suggests that the organization is a variable and can be controlled (Sackmann, 1992). The behaviors demonstrate the meanings that may be shared within the culture. Culture in the variable perspective addresses the routines and methods of work. The third perspective is the cognitive perspective. According to Sackmann (1992), this perspective views the culture of the organization as a system of knowledge or learned responses. This perspective guides behaviors and establishes the acceptable responses for specific situations.

Organizational Culture Model

Culture, according to Denison (1996), refers to "the deep structure of organizations, which is rooted in the values, beliefs, and assumption held by organizational members" (p. 624). Work place socialization provides for opportunities for meaning to be established. These

interactions become symbolic of the culture and provide stability, while creating a sense of individual dependency (Denison, 1996). This particular model defines boundaries for culture that include historical traditions and evolving context compared to situational feelings and behaviors. Unlike others, Denison (1996) does not support the concept that culture is easily manipulated.

The Dennison's Organizational Culture Model (DOCM) is comprised of four cultural traits including adaptability, mission, involvement, and consistency (Denison, 1996). Adaptability refers to the organizations ability to translate the demands of the business environment into actions (Casida & Pinto-Zipp, 2008). Internal behaviors, norms, and beliefs are recognized with actions taken. The organization that is effective with change, customer focus and organizational learning score high in this trait (Block, 2003). Mission is a trait that reflects the organization's ability to define long term direction (Casida & Pinto-Zipp, 2008). The mission is instrumental with providing directions for action for the organization's employees. Indices that are noted in this trait include vision, strategic direction and intent (Block, 2003).

The third trait identified is involvement. This trait is characteristic of a highly involved culture where employees create a sense of ownership and responsibility (Casida & Pinto-Zipp, 2008). Informal and implied controls are effective in this type of environment. These employees demonstrate core values, empowerment, and capability development (Block, 2003). The final trait in the DOCM is consistency. These are the values and systems that are the basis of the strong culture (Casida & Pinto-Zipp, 2008). Coordination and integration of efforts are recognized in cultures that score high in this realm. Indices noted include core values, agreement, and coordination (Block, 2003).

Multiple models have been developed to identify and impact organizational culture. The boundaries of organization culture appear to be quite well defined however these boundaries are

blended with organizational climate. While the overlapping of culture and climate attributes occurs, understanding the distinct attributes provides for a greater appreciation of both the similarities and differences.

Organizational Climate

Culture resides at a deeper organizational level with beliefs and values that are firmly imbedded in the organization (Schneider, Brief, & Guzzo, 1996). Organizational climate is less ingrained by the individual within the organization. Climate focuses on policies, procedures, or practices within an organization (Schneider, Brief, & Guzzo, 1996). The organizational climate dimensions appear to be more visible when compared to attributes of culture. Similar to culture, a definition of climate is equally as elusive. Additionally, the lack of consensus regarding the unit of theory or measurement continues to challenge those involved with defining organizational climate (Glick, 1985).

According to Glick (1985), organizational climate was originally used to refer to social, organizational, and situational influence on behavior. Tagiuri and Litwin (1968) identified four problems surrounding the inability to create a definition that applied to all areas of focus and these problems persist today. Problems include the ability to distinguish between the objective and subjective environment, the person and the situation, determining what aspects of the environment need to be specified, and lastly, selecting the structures and dynamics of the environments (Tagiuri & Litwin, 1968). Climate remains "external to the individual, yet cognitively the climate is internal to the extent that it is affected by individual perceptions" (Woodman & King, 1978, p. 818).

Definitions of Organizational Climate

While one definition has not been globally accepted, the following definitions have been generally accepted. One of the earliest accepted definitions identifies a set of characteristics that distinguishes the organization from other organizations, is enduring over time, and influences the behavior of people (Forehand & Gilmer, 1964). In an effort to become more focused on the perceptions of the individual, Tagiuri and Litwin (1968) defined climate as a "relatively enduring quality of the internal environment that is experienced by the members, influences their behavior, and has values that describe a set of characteristics of the organization" (p. 27).

Organizational climate refer to employee's perception of the impact of the work environment on their own well-being (Denison, 1993). Hemmelgarn, Glisson, and Dukes (2001) believe that both culture and climate perpetuates attitudes and behaviors among employees. Member perceptions continue to be integrated into organizational climate as noted by work related features like decision making, leadership, and norms about work (Stone et al., 2005). Schneider, Brief, and Guzzo (1996) delineate climate as being the collective reflection of the employees' experience of organizational culture. Aspects of organizational climate are easier to measure as they are more visible (Gershon, Stone, Bakken, & Larson, 2004).

Organizational Climate Perspectives

With increasing interest in organizational climate, understanding the unit of theory or unit of measure continues to be a recognized concern (Glick, 1985). The two differing theoretical units are the organization and the individual. Researchers concerned with the individual's perceptions focus on the psychological climate while researchers concerned with the organization focus on the organizational attributes (James & Jones, 1974). Climate researchers place great emphasis on the perceptions of organizational members, but the categorization of

these practices and perceptions differ in the analysis (Denison, 1996). The dilemma is that climate can be conceptualized as a psychological variable with the data collected at the individual level or it can be understood as a group or organizational level variable (Scott-Findaly & Estabrooks, 2006).

Organizational climate from the organizational attribute approach has been defined as using the employees' collective perceptions and interpretation of the organization's attributes (Sleutel, 2000). Forehand and Gilmer (1964) posit that climate at the organizational level assumes that an internally consistent and homogeneous set of measures exists for subunits of the organization. At the organizational level of analysis, climate can be described as the work environment or personality of the organization (Sleutel, 2000). Attention to how measurements of organizational attributes are used remains a factor when variances in scores must be shown to be related to differences in situations and not individuals (James & Jones, 1974).

Conversely, the individual unit of analysis assesses the individual's subjective interpretation of the organization's conditions (Sleutel, 2000). Individual attributes measure the group member's perceptions, interpretations, personal meaning, and valuation of the organization's attributes (Brown & Leigh, 1996). Organizational climate as an individual attribute is exemplified by perceptions that are psychologically meaningful to the individual rather than in terms of concrete organizational features (James & Jones, 1974). Perceptual biases and other individual factors may generate different perceptions of the same environment for different individuals (Brown & Leigh, 1996). Individual perceptions that have the potential for variation include different styles of management and cultures within different organizations (Brown & Leigh, 1996). The impact of individual perceptions cannot be underestimated when

analyzing organizational climate and should be clearly articulated when organizational climate is used.

Organizational Climate Dimensions

Organizational climate has been categorized into dimensions; however, the division for the dimensions varies. Schneider (1980) suggests that the dimensions of organizational climate will differ depending on the area of focus and study. As a result of the various uses, dimensions have been created to support aspects of climate ranging from a global approach to a facet specific approach (Schneider, 1980). The differing dimension approaches should not be viewed as antagonistic but as an opportunity to consider multiple facets of the organizational climate. A multidimensional global approach can focus on subcultures or effects of particular dimensions on outcomes and measures (Ashkanasy, Welderom, & Peterson, 2000).

Moran and Volkwein (1992) identified four dimensions for climate formation. The four approaches include structural, perception, cultural, and interactive. These dimensions remain complementary from a study perspective (Yahyagil, 2006). The first dimension is structural which determines the relationship between the objective and perceptual measures of organizational climate (Moran & Volkwein, 1992). It is the belief that climate is a characteristic or an attribute belonging to an organization. According to Moran and Volkwein (1992), these attributes are viewed as being possessed by the organization itself and as existing independently of the perceptions of the individual members. This perspective is expanded from the foundational work of Guion (1973), whose contention was that if organizational climate is considered an organization attribute, but measured perceptually, then the accuracy of perception should be validated against objective, external measures. Moran and Volkwein (1992) depict a

model that "shows organizational structure producing an organizational climate with independent properties of its own which individual organization members perceive" (p. 22).

Of the four dimensions, the perceptual approach contradicts the structural approach and has also been termed the psychological approach (Moran & Volkwein, 1992). The centralized focus becomes the individual with the perceptual approach rather than the organizational attributes. This perceptual approach is based on the premise that individuals interpret and respond to situational variables in a way that is psychologically meaningful to the individual and not because of the objective descriptions of specific situational or structural attributes (James, Hater, Gent, & Bruni, 1978). Building and expanding from the structural approach, perception approach supports the premise that the individual perceives organizational conditions and creates an abstract interpretation of climate. Organizational conditions include both structural and process characteristics of the organization, which enlarges the focus of the perception approach (Moran & Volkwein, 1992). Field and Abelson (1982) identify variables of personality, task structure, and supervisory styles as impacting climate. The basic tenet of the perceptual approach is the climate has a functional purpose for individuals in that it helps them adapt to organizational conditions (Moran & Volkwein, 1992).

The interactive approach is the third dimensions identified which is a blending of the two previously discussed approaches. This dimension suggests that it is "the interaction of individuals in responding to their situation that brings forth the shared agreement which is the source of organizational climate" (Moran & Volkwein, 1992, p. 25). This approach recognizes the interactions between individuals, group members, and the environment. The individuals process information and incorporate interactions among members to provide meaning (Moran & Volkwein, 1992). This approach uses both the phenomenological and the symbolic

interactionistic philosophies (Moran & Volkwein, 1992). The individual develops shared perceptions from their environment and interactions. The individual meanings evolve through interactions with both subjective and objective realities (Moran & Volkwein, 1992).

The final approach identified by Moran and Volkwein (1992) to describe organizational climate is the cultural approach. This approach builds on the interpretive paradigm to provide a perspective on the methods or ways that organizations forge a common sense of history, values and purpose using the collective interpretations of the members (Moran & Volkwein, 1992). This approach integrates aspects of the three approaches and identifies the interconnectedness of climate and culture. "While climate shapes interaction with the organization, that interaction not only shapes the organizational climate but can alter its culture as well (Moran & Volkwein, 1992, p. 26). The organizational climate is created by groups of individuals who share a common reference point but relies on the interactions of the member's for the actual climate formation (Moran & Volkwein, 1992). Climate is the joint property of both the organization and the individual, thus it is both a macro and micro construct (Ashforth, 1985).

While challenges to the relevance of dimensions relating to organizational climate continue, the dimensions do provide a framework for consideration regarding the employees' perceptions of organizational practices, operations, and policies/procedures (Yahyagil, 2006). Schneider, Brief, and Guzzo (1996) identified four dimensions that differ from the four dimensions noted previously. These four dimensions encompass organizational climate as the nature of interpersonal relationships, the nature of hierarchy, the nature of work and lastly, the focus on support and rewards (Schneider, Brief, & Guzzo, 1996). While the first three dimensions focus on function, the final dimension addresses goals.

The first dimension of the nature of interpersonal relationship focuses on multiple aspects of relationships. The basic challenge considered include are there episodes of mutual trust and sharing or is there conflict and mistrust (Schneider, Brief, & Guzzo, 1996). This dimension questions the relationships with senior management and personal welfare, while also addressing the socialization practices and issues for new employees (Schneider, Brief, & Guzzo, 1996). The second functional dimension is the nature of the hierarchy. The issues or attributes included with this dimension include decision making input, team work and emphasis on team (Schneider, Brief, & Guzzo, 1996). This dimension also addresses the differences in behavior or treatment between employees and leaders. The final functional dimension is the nature of work. According to Schneider, Brief, and Guzzo (1996), attention to job challenges, provision of resources, and flexibility are addressed within this dimension.

The final dimension identified by Schneider, Brief, and Guzzo (1996) is more goal related and the focus is on support and rewards. This approach differs from function to outcomes which are noticeable with this dimension. Attention towards goals results in creating an environment that hires the right employees, educations and trains for required skills, communicates effectively to ensure that all aspects of goal attainment is available, while clearly articulating the rewards for expected performance (Schneider, Brief, & Guzzo, 1996). This specific dimensional approach encompasses a wide range of issues to be considered within the organizational climate which has created some controversy regarding the applicability of this approach. Schneider (1980) concludes that the purpose of the study will require differing dimensions.

Building on the nine dimensional approach developed by Litwin and Stringer (1968), a six dimensional concept has been refined to further capture the attributes of organizational

climate. The nine dimensions originally identified include structure, responsibility, reward, risk taking, support, warmth, standards, conflict and identity (Litwin & Stringer, 1968). Work conducted by Rogers, Miles, and Biggs (1980) concluded that most studies had found six factors more appropriate and that the nine scale showed poor split-half reliabilities. In response to this determination, multiple works using six dimensions followed with the identified six dimensions being structure, responsibility, reward, risk, warmth, and support (Mahal, 2009). The Hays Group redefined the original nine attributes into six dimensions that include flexibility, responsibility, standards, rewards, clarity, and team commitment (Snow, 2002).

Further refinement of the identified six dimensions has led to the creation of a model that identifies dimensions located in one of four quadrants. The model creates the dimensions to allow for emphasis both across quadrants and across dimensions within the quadrants (Patterson et al., 2005). The four quadrants include human relations, which is an internal focus and flexible orientation (Patterson et al., 2005). The second domain is an internal focus with a control orientation and is titled internal process (Patterson et al., 2005). The open system quadrant is the third area with an external focus and flexibility orientation and lastly, the fourth quadrant is rational goal which has an external focus and control orientation (Patterson et al., 2005).

The attributes are inclusive in this model, but are not balanced within each quadrant. This unequal distribution was intentional as it was identified that some dimensions are "inherently more complex and multifaceted than others" (Patterson et al., 2005, p. 385). The first quadrant of human relations includes norms and values associated with trust, belonging, cohesion which supports the dimensions of employee welfare, autonomy, participation, education and training, integration and supervisory support (Patterson et al., 2005). The second internally focused quadrant of internal process addresses stability, coordination and control. The

dimensions included in this quadrant are formalization and traditions (Patterson et al., 2005). These dimensions are identified as the characteristic formalities of an organization.

The externally focused quadrants include open systems and rational goals. In the open system model, attention towards readiness, change, innovation, creativity, and adaptation is included. The dimensions specific to this area includes flexibility, innovation, outward focus, and reflexivity (Patterson et al., 2005). According to Patterson et al. (2005) the final quadrant of rational goal emphasizes pursuit and attainment of well-defined objectives, with norms and values associated with productivity, efficiency, goal fulfillment, and performance feedback. The climate dimensions depicted include clarity of organizational goals, effort, efficiency, quality, pressure to produce, and performance feedback (Patterson et al., 2005). The tool created as a result of the quadrant efforts is called the Organizational Climate Measure (OCM). The theoretical foundation for this tool was built from the Competing Values model. The Competing Values model provides a background of organization climate and allows for organizations to span all four quadrants with varying degrees (Patterson et al., 2005). The organizations degree of emphasis and associated types of managerial practices are able to be studied utilizing this tool.

Multiple variations of dimensions have been identified in an effort to capture the essence of organizational climate. The central theme of any dimension remains a variable depending on the specific perspective of the dimension. The development of the OCM using the Competing Values model as the theoretical framework, allows for specific attention towards innovation and managerial attributes. This quadrant model allows for variance within organizations but can be instrumental with the identification of dimensions that are robust and strengths of the organization.

Culture and Climate Comparison

The definition for organization culture and climate remains blurred and continues to be identified as a recommendation for future efforts and considerations. As elusive as one definition remains, there are distinct aspects of organizational culture and climate that are recognized to differentiate the two. The boundaries between culture and climate must be established for differentiation. In regards to organizational culture, culture evolves slowly and is a highly enduring characteristic of an organization compared to climate which is a relatively enduring characteristic and while evolves out of some of the same elements of culture, climate is more shallow, forms quickly and can be rapidly altered (Moran & Volkwein, 1992). Denison (1996) portrays a comparison of research perspectives that provide for direct comparisons:

Table 1. Contrasting Organizational Culture and Organizational Climate Research Perspectives.

Difference	Culture	Climate
Epistemology	Contextualized and idiographic	Comparative and nomothetic
Point of View	Emic (native's viewpoint)	Etic (researcher's viewpoint)
Methodology	Qualitative field observation	Quantitative Survey data
Level of Analysis	Underlying values and assumptions	Surface level manifestations
Temporal Orientation	Historical evolution	Ahistorical snapshot
Theoretical Foundations	Social construction; critical theory	Lewinian field theory
Discipline	Sociology & anthropology	Psychology

'Culture researchers are concerned with the evolution of social system over time, while climate remains focused on studying the effects of the organization on outcomes (Sleutel, 2000).

While this table portrays differences between culture and climate, there are similarities that exist between the two. According to Denison (1996), both culture and climate share the same contextual theoretical issue that involves shared dilemmas. There are dynamics between the whole and the part which are integrated into both. The phenomenon of culture and climate both focus on the internal social environment as a holistic, collectively defined social context (Denison, 1996). Human behavior in organizations and how the organization influences group member's behavior applies to both culture and climate. Both climate and culture may be viewed as multidimensional and multilevel constructs (Sleutel, 2000). Denison (1996) argues that culture and climate do not represent different phenomena, but a different perspective of the same phenomenon.

Aspects of culture and climate impact multiple variables for a wide variety of professions. Health care variables must be assessed to determine the similarities and differences within the organization. Further assessment and focus within the multiple services delivered by health care provides insight into the aspects of culture and climate that significantly impacts the overall perceptions of staff. Further narrowing the focus specifically to the nursing profession could reveal information that might enhance positive changes for the organization.

Nursing and Organizational Climate

Organizational culture and climate "drives both the quality of the nurses' work lives and the quality of patient care" (Kramer, Schmalenberg, & Maguire, 2004, p. 44). The realization of the importance of organizational climate regarding nursing retention is gaining attention with leaders within healthcare systems. The work place environment, including the elements of both the organizational climate and the nursing unit climate, requires examination in order to identify

aspects of the climate that positively and negatively affect the nursing staff. According to Stuenkel and Cohen (2005), studying the work environment will provide an important approach for developing strong nursing retention programs. Organizational climate factors noted to impact overall satisfaction of the nurse includes workload, peer cohesion, level of autonomy, and supervisor/leadership support (Laschinger, Finegan, & Shamian, 2001).

Discretionary effort has been identified as the effort given by an employee when the organizational climate is motivating, the leadership attributes of the managers are supportive, and the demands of the job are clearly understood (Hunter, Schmidt, & Judiesch, 1990). According to Snow (2002), nurses, who feel good about an organization, perform at levels higher than others. These nurses are the nurses that excel and achieve at expectation levels higher than peers and provide quality care to patients when work situations are less than optimal. It has been suggested that "discretionary performance can be the difference between an average unit/organization and a superior one" (Snow, 2002, p. 397). Hunter, Schmidt, and Judiesch (1990) concluded that top workers are three times more productive than bottom workers. Creating a positive nursing climate fosters an environment for nurses that may result in retention of staff that will give to the organization, while personally growing as a professional (Snow, 2002).

Nursing leaders have significant influence and abilities to impact the environment within the nursing unit of an organization. The creation of a positive climate results in positive productivity, job satisfaction, and commitment of staff (Snow, 2002). Nursing organizations that recognize the impact of nursing leaders to affect nursing practice will be better equipped to manage the predicted nursing shortage as retention of talented staff will be the outcome of a positive work climate (Ulrich, Buerhaus, & Donelan, 2007). The phenomenon of leadership and

organizational culture supports the importance of the relationship of leaders with staff and has been identified as an attribute contributing to the success or failure of an organization (Casida & Pinto-Zipp, 2008). Attention specific to the front line nursing leader has not received the same degree of analysis regarding the impact on unit based organizational climate (Casida & Pinto-Zipp, 2008).

Attributes and behaviors of the nurse manager have been instrumental in creating work environments that reflect aspects of organizational climates. The nursing practice or work environment, reflecting organizational climate, suggests that nursing managers have the ability to create and implement a vision of what can be accomplished at work and empowers the staff with the vision. This is accomplished while understanding the necessity for change in alignment with organizational initiatives (Casida & Pinto-Zipp, 2008). The nurse manager must balance the demands of cost efficiencies and increased patient demands with new challenges such as technology and regulatory outcome expectations. The attributes of this type of nurse manager contributes to the unit/organizational nursing climate. Correlations between effective nurse managers and highly engaged nursing staff have been determined to impact both performance and retention (Wagner, 2006).

Within the nursing literature, climate has been found to impact organizational commitment, productivity, performance, motivation, and attitude (Gilles, Franklin, & Child, 1990, Snow, 2002). There is limited nursing literature available that focuses on the generational differences perceived by nurses. Research conducted by Farag, Tullai-Mcguinness, and Anthony (2009) provided insight into aspects of climate related to the staff nurses' age. The Litwin and Stringer Organizational Climate Questionnaire (LSOCQ) was used to measure the perception of the unit's climate (Farag, Tullai-Mcguinness, & Anthony, 2009). The results of this study

suggest that there are differences among the four age ranges used, however, the focus of the differences are contradicted to previous findings (Farag, Tullai-Mcguinness, & Anthony, 2009). Aspects of unit climates that differ with age include those related to warmth and belonging and administrative support. According to Farag, Tullai-Mcguinness, and Anthony (2009), these differences may be related to multicultural as well as generational aspects.

Focusing on successful health care organizations, efforts to identify important nursing attributes resulted in the development of the Nursing Workforce Index (NWI). This tool created by Kramer and Hafner (1989) measured four components that were organizational characteristics suggesting better retention, recruitment, and nursing satisfaction (Kramer & Hafner, 1989). This 65 item assessment was designed originally to evaluate multiple factors of nurse's job satisfaction, quality of nursing care, and the organizational qualities of Magnet hospitals (Hanrahan, 2007). The four components demonstrated that nurses reported stronger professional and personal satisfaction when decision making was at the unit level, strong nursing leadership was involved at the highest management levels, quality of care reflected nursing autonomy and accountability, and lastly, management supported professional practice (Hanrahan, 2007). This tool had limited validity and was criticized for the length (Liou & Cheng, 2009).

Selecting a tool that measures and provides information that is relevant for assessing the nurses' perception of the unit's climate is critical. Building on the NWI, Aiken and Patrician (2000) included the assessment of organizational traits of hospitals. The nursing work index tool has been revised and has been used to measure the nursing practice environment (NWI-R) (Li et al., 2007). This tool decreased the survey from 65 to 57 items (Liou & Cheng, 2009). This study examined the performance of three known subscales sets for determining the perceptions of the nursing environment using the NWI-R (Li et al., 2007). The analysis revealed that the subscales

have both similarities and differences. The similarities among nurses include collegial relationships, staffing adequacy, and nurse manager leadership as being enduring aspects of unit climate (Li et al., 2007). Recommendations include the necessity to continue to strive to develop a short, easily administered survey instrument specific to nursing unit climates.

Revisions continued resulting in a new tool named the Practice Environment Scale of the Nursing Work Index (PES-NWI). Lake (2002) originally used 48 of the NWI items which were later reduced to the final 31 item measurement tool. The PES-NWI has five subscales, including nursing foundations for quality of care, nurse participation in hospital affairs, nursing manager ability and leadership support, staffing and resource adequacy, and collegial nurse-physician relations (Hanrahan, 2007). Using this tool to measure nursing perceptions, the higher the score indicates a positive practice environment (Li et al., 2007). Specific to leadership, Lake (2002) observed that "nurse managers are able to support nurses when there is conflict with a physician and when nurses make mistakes, and to praise and recognize a job well done" (p. 182). The dominant feature within this subscale is the nurse manager is a good manager and leader (Lake, 2002). This tool has been recognized and adopted by both the National Quality Forum and the American Nurse Association's National Database of Nursing Quality Indicators as a reliable and valid set of measures of the nursing environment in hospitals (Hanrahan, 2007).

Nursing unit climates are created and sustained as a result of multiple influences. The unit based leader, while not completely responsible for the influences impacting climate, possesses significant potential to create, sustain, or change the current unit climate. Understanding the attributes of the nurse manager that are instrumental for creating positive organizational climate requires intentional focus and review. With the dynamic and demanding expectations placed on healthcare organizations and the staff nurse, it is imperative that the nurse

manager understand and develop the attributes that enhance success within the role. As a result of acquiring and developing appropriate role attributes, the unit climate will be enhanced, resulting in stronger organizational performance.

Leadership and Climate

Assessing organizational climate encompasses multiple factors and is not the sole responsibility of either the leader or the follower. There is significant evidence that supports the premise that 70% of employee's perceptions of the unit's climate are directly shaped by managers (Momeni, 2009). It is the belief that influencing organizational climate is the function of leadership (Ayers, 2005). Studies show that a great climate is able to increase motivation, decrease turnover and resistance to change by employees (Goleman, 2000). The research portrays strong associations between the leaders' ability to arouse motivation by appealing to human needs for achievement, affiliation, and power (Ayers, 2005).

Three components have been identified regarding feelings experienced by the employee in regards to organizational climate. These include feelings about management, the job, and other employees (Momeni, 2009). The depth of these areas impacts employees' perceptions stronger than organizational policies, programs, or financial situations (Momeni, 2009). The greatest of these areas impacting climate are the feelings regarding management (Momeni, 2009). Creating positive feelings or improving on current feelings are methods for improving perceptions regarding specific organizational climates. Goleman (2000) suggests that efficient managers with high emotional intelligence (EI) can create environments where loyal, intelligent, risk, reward, and invested employees strive towards goals.

One study conducted to assess the impact of emotional intelligent leaders and

organizational climate selected managers from a car parts manufacturer. Momeni (2009) utilized a tool that integrated a 360 model for gathering management information. The assessment tool used subscales familiar to the emotional intelligence framework. This study identified the independent variable as emotional intelligence and the organizational climate as the dependent variable (Momeni, 2009). As purposed in the hypotheses, the higher the EI score, the better the organizational climate score. While limited in scope, the results indicate that emotional behaviors have the main role in creating organizational climate (Momeni, 2009). While specific dimensions of emotional intelligence indicated that self management is critical, the overall conclusion of this study supports the realization regarding the importance of leader's emotions in creating a great climate within the organization.

Nursing Climate Recognition

Magnet designation recognizes nursing excellence. This designation is highly regarded within the healthcare industry and is gaining national awareness. This designation recognizes organizations that demonstrates excellence in patient care and outcomes and is considered the gold standard for nursing practice (Ulrich, Buerhaus, & Donelan, 2009). According to Kramer, Schmalenberg, and Maguire (2004), a culture of excellence has always gone hand in hand with the concepts of magnetic work environment, highly successful, and excellent care" (p 44).

The Magnet recognition program was created in 1981 as a result of findings from a task force commissioned by the American Nurse Association (ANA). Upon review of 41 hospitals determined to have unique attributes impacting nurses and nursing retention, organizational characteristics were identified (Lundmark & Hickey, 2006). These aspects of organization were noted to facilitate professional nursing practice including organization and delivery of nursing

services (Lundmark & Hickey, 2006). According to Kramer, Schmalenberg, and Maguire (2004), attributes include positive nurse-physician relationships, autonomy, culture that supports patient as paramount, adequate staffing, support for education, and nurse manager support.

The American Nurse Credentialing Center (ANCC) awards health care organization with the Magnet designation, which remains the highest recognition. The program maintains three goals for the advancement of nursing which includes promoting a quality milieu that supports professional practice, identifying excellence in the delivery of nursing service, and providing a mechanism for the dissemination of "best practices" in nursing services (Pross, 2010). The components of this recognition program include evidence of transformational leadership, structural empowerment, exemplary professional nursing practice, new knowledge, innovations and improvements, and empirical quality outcomes (ANCC, 2008).

Within the parameters of a healthy environment, Pross (2010) maintains that strong nursing leadership is necessary to establish the environment that supports front line nursing staff. Accessible nursing leaders play a key role in helping to give nurses a voice in the improvement of practice environments (Pross, 2010). Drenkard's (2009) research continues to identify important aspects of healthy practice environments. Leaders can help create a satisfying organizational culture at the unit level by engaging staff in the development of shared values in their work (Pross, 2010).

Nursing leaders are in a unique position to impact the practice environments for the staff nurse. Recognition programs have integrated nursing leadership attributes into components for success. Building on these observations and realizations, emotional intelligence attributes can support the nurse leader to create a climate that is conducive for professional nursing success.

Enhancing emotional intelligence skills in nursing leaders has been attributed to personal mastery as a critical component of leadership (Pross, 2010).

Emotional Intelligence

There has been a realization that both positive and negative emotions in the work place warrant acknowledgement. Goleman (1998) suggests that emotions have been transferred from negative and irrational to positive critical success factors and emotional intelligence (EI) has been touted as vital to leadership effectiveness. While intelligence testing and cognitive abilities have been recognized as attributes for a leader to possess, emotional intelligence attributes should not be discounted and should be viewed as equal if not more important. A study conducted by Goleman (2004) to determine the ingredients of excellent performance, assessed the ratio between emotional intelligence, technical skills and traditional intelligence scores. The ratio for EI proved to be twice as important as either technical or cognitive abilities (Goleman, 2004). Analyzing the impact of emotional intelligence attributes within the leadership arena can prove insightful into increased leadership effectiveness.

Emotional Intelligence Seminal Works

Building on the premise of social intelligence, emotional intelligence is defined as the "ability to monitor one's own and other's feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (Salovey & Mayer, 1990, p. 189). The original construct was comprised of three adaptive categories including appraisal and expression of emotions, regulation of emotions, and utilization of emotions in solving problems (Schutte et al., 1998). A revised model gave more emphasis to the cognitive components of EI and expanded to four processes (Schutte et al., 1998). The four branches were identified for

categorizing the aspects of EI including the ability to appraise emotions in self and others, assimilate emotion related feelings, understand the information of those emotions and use the emotions in an adaptive way (Mayer & Salovey, 1997). This model has been identified as an ability based model, which focuses on the well defined and related set of abilities for processing emotional information and regulating emotions adaptively (Fambrough & Hart, 2008).

Goleman popularized the concept of EI, which encompassed five dimensions. These dimensions include self awareness, self regulation, motivation, empathy, and social skills (Goleman, 1995). Subsequently, the dimensions have been decreased by one and include self-awareness, relationship management, social awareness, and self-management (Goleman, 1998). As a mixed or trait based model, which measures the frequency of particular behaviors, the dimensions are assessed using identified competencies (Zeidner, Mathews, & Roberts, 2004). Variations of the construct developed by Goleman have resulted in reducing dimensions while adding competencies (Fambrough & Hart, 2008). A similar mixed based model, developed by Bar-On, defined emotional quotient as all noncognitive abilities, knowledge, and competencies that help one cope with a variety of situations encountered in life (Fambrough & Hart, 2008). This model, as with Goleman's competency model, addresses responses and reactions to situations compared to someone's innate response to those situations.

Building on the four dimension model of Mayer and Salovey, Davis, Stankov, and Roberts (1998) identified a very similar definition of the EI domains. The four dimensions include appraisal and expression of emotion in oneself (SEA), appraisal and recognition of emotion in others (OEA), regulation of emotion in the self (ROE) and use of emotion to facilitate performance (UOE; Davis, Stankov, & Roberts, 1998). The SEA relates to the individual's ability to understand deep emotions and express these emotions to others. OEA refers to the

ability to perceive and understand the emotions of those surrounding them, while ROE is the ability to regulate one's emotions. Lastly UOE is the ability of a person to make use of one's emotions by using the emotions towards constructive activities and personal performance (Law, Wong, & Song, 2004). The combination of intrapersonal and interpersonal intelligence supports the view that EI is another form of intelligence (Law, Wong, & Song, 2004).

Mayer, Caruso, and Salovey (2000) concluded that EI conceptually adheres to the three standard intelligence criteria of conceptual, correlational and developmental. EI traits are more reflective of mental abilities as opposed to behavior which supports the conceptual criteria. The correlational criterion is met as EI should "represent a set of correlated abilities that are similar to, but distinct from, mental abilities (Mayer, Caruso, & Salovey, 2000, p. 270). Several studies have been conducted that empirically demonstrate that the dimensions of EI were moderately correlated among themselves, but only mildly correlated with general mental abilities (Law, Wong and Song, 2004). Wong and Law (2002) noted that EI is positively correlated with age among the six differing roles studies. Mayer, Caruso, and Salovey (2000) posit that EI increases with age and experience, which qualifies it as ability rather than a personality trait.

EI Measurement Tools

Tools used to measure the attributes of emotional intelligence were developed in order to study the impacts of emotional intelligence. Two measures initially developed used the method of self-reporting. The Bar-On Emotional Quotient Inventory is a 133 item self-reported tool which is divided into 15 distinct scales that measure emotional self-awareness, assertiveness, self-regard, self-actualization, independence, empathy, interpersonal relationships, social responsibility, problem solving, reality testing, flexibility, stress tolerance, impulse control, happiness, and optimism (Bar-On, 1996). This tool has demonstrated evidence of validity in that

the scales correlate with several measures which are theoretically related and differentiated between groups (Bar-On, 1996).

Based on this and other initial works, Schutte et al. (1998), sought to develop a tool that would measure the four attributes identified by Salovey and Mayer (1990). The tool was a self-reporting measurement of emotional intelligence. The development of this measurement tool resulted in six distinct studies resulting in the development and validation of the self-reporting tool (Schutte et al., 1998). The development of this specific tool followed the methodology that included objective, quantitative approaches that are positivist in perspective, while the attributes of the tool remain social constructionist.

A more definitive measurement tool that is not a tool that uses self-reporting as the collection vehicle is the multifactor emotional intelligence scale (MEIS). Ciarrochi, Chan, and Caputi (2000) identified the need to critically evaluate the EI construct as operationalized by the MEIS. There were four aspects evaluated by this study. These included the reliability and factor structure of the MEIS and examined if EI relates to variables it ought to relate to (Ciarrochi, Chan, & Caputi, 2000). Other aspects studied were if EI moderates the relationship between experimentally induced mood and mood-based judgmental biases and mood management. The final aspect investigated was whether EI relates to important criteria and to mood biases even after controlling for existing, well-established measures (Ciarrochi, Chan, & Caputi, 2000). The study was multidimensional and completed in different phases. According to the conclusions of Ciarrochi, Chan, and Caputi (2000), the MEIS tool has both reliability and validity with correlational studies revealing that this tool is a distinct and useful tool for measuring emotional intelligence. It is necessary to have tools that have been supported scientifically in order to build

and support this new domain of intelligence. The objective approach to this study supports the positivist philosophy that is consistent with other studies of this type.

Utilizing the four dimensional scale developed by Davis, Stankov, and Roberts, Law, Wong & Sung (2002) created a self-reporting tool titled the Wong and Law EI Scale (WLEIS). A major initiative for the development of this tool was to demonstrate the differences between EI attributes and personality as measured using the Big Five personality dimensions (Law, Wong & Song, 2002). The measurement development efforts concluded that differences exist between the two (Law, Wong & Song, 2002). Law, Wong and Song (2002) propose that measuring management responses will become predictive of job performance and that it is intuitive that EI would affect job performance. Awareness, regulation, and utilization of emotions would help to develop positive social interactions and exchanges in an organization and enhance employee's performance (Law, Wong & Song, 2002). The WLEIS is a tool that measures the leader's ability within the four dimensions noted by Davis, Stankov and Roberts specific to emotional intelligence.

The Swinburne University Emotional Intelligence Test (SUEIT) is a tool produced to measure the relationship between emotional intelligence and leadership in the workplace. This is a self-report that provides a total EI score as well as five scores specific to emotional recognition and expression, emotions direct cognition, understanding of emotions external, emotional management and emotional control (Gardner & Stough, 2002). According to Gardner and Stough (2002), emotional recognition and expression is the ability to identify one's own feelings and express those feelings to others. Emotions direct cognition is the extent to which emotions and emotional knowledge is used for decision making while understanding of emotions external is the ability to understand others (Gardner & Stough, 2002). The ability to manage both

positive and negative emotions in self and others is labeled emotional management and emotional control is noted to be the effectiveness of managing those emotions experienced in the workplace (Gardner & Stough, 2002). This tool is a self-reported tool that is specifically designed to measure individuals' perception of the way they feel, think and act at work in relation to emotional information (Gardner & Stough, 2002).

Emotional Intelligence Studies

As the evidence continued to evolve demonstrating the framework of emotional intelligence as a theory, empirical research studies also grew in numbers. After determining gaps within the present studies available, Petrides and Furnham (2002) identified the neglect of the distinction between typical and maximal performance with the EI areas. Consistent with this concern, Petrides and Furnham (2002) proposed a theoretical distinction between trait EI and ability EI. The former is measured using a self-reporting tool; while the latter is measured using maximum performance tests (Petrides & Furnham, 2002). The first aspect of this two-part study focused on examining whether there is any correspondence between people's self perception of their ability to recognize, process, and utilize emotion-laden information and their specific actual ability to identify facial expressions (Petrides & Furnham, 2002). The hypothesis that high trait EI groups would perform better than the low trait EI groups was realized, supporting the validity of the sampling domain used, while identifying the fact that high trait EI individuals may be more sensitive to emotion- laden stimuli in general (Petrides & Furnham, 2002). The second aspect of the study used the limitations from the first portion of the study. The premise for the second portion of the study was that if high trait EI individuals are more sensitive to emotion-laden stimuli, it is likely that they will also be more responsive to mood induction procedures (Petrides & Furnham, 2002). Results specific to this portion of the study supported the concepts

that high trait EI groups would perform better than lower trait EI groups. On a more general basis, the findings from both aspects of the study support the ideas that emotional dispositions can be affected by emotional perceptions (Petrides & Furnham, 2002). This quantitative study supported the positivist philosophy providing fact oriented results specific to sample studied, while less specific to other segments of the population.

Within the arena that supports EI theories, there is a distinct difference regarding motivation that has not been firmly determined. Motivation is believed by some to be inclusive within the EI construct, while others support the premise that motivation is a subset of EI. Goleman (1995) supports the inclusion of motivation within the EI construct, while Salovey and Mayer (1990) do not see motivations as a factor of emotional intelligence. Christie, Jordan, Troth, and Lawrence (2007) conducted an empirical study to test the two different conceptualizations of motivation. Surveys were distributed to 215 individuals using tools that measured both motivational attributes and emotional intelligence dimensions. Analyses were conducted to ensure the factor structures of all measured constructs demonstrated construct validity, reliability, and discriminant validity (Christie et al., 2007). The results of this study supported the premise that motivation is not a component of emotional intelligence, but should be linked to rather than comprises part of the emotional intelligence construct (Christie et al., 2007).

As Goleman (2000) further developed his theory of emotional intelligence, attention to specific leadership styles has been noted to be lacking in demonstrating which precise leadership behavior yield positive results. Goleman (2000) used a random sample of 3,871 executives from a database to study six distinct leadership styles from the different components of emotional intelligence. The six leadership styles were studied to determine the impact on the six drivers of

the working atmosphere (Goleman, 2000). As a result of the correlative study, it was determined that four out of the six leadership styles had a positive effect on climate or work atmosphere (Goleman, 2000). The study supports the conclusion of others that a variety of leadership styles are more effective than one, with authoritative, democratic, affiliative and coaching styles noted to promote the best climate and business performance (Goleman, 2000). The qualitative methodology of this study assisted with expanding the knowledge of leadership styles. This study adds to the social constructionist perspective as previously noted with the EI theory development.

Further delineation of the workplace atmosphere has identified the health care environment as an area to study in order to determine if emotional structures have any impact on the health care workers level of commitment to an organization. A study conducted by Humphreys, Brunsen, and Davis (2005) focused on empirically assessing the relationship between emotional intellect and emotional coping skills and to determine if EI and or emotional coping ability were related to affective organizational commitment. This qualitative study determined that those direct care workers who exhibited higher scores on the EI and emotional coping scales were clearly more committed to the organization (Humphreys, Brunsen, & Davis, 2005). This study needs to be conducted in a variety of health care settings to determine if EI attributes and coping skill impact organizational commitment.

Palmer, Walls, Burgess, and Stough (2001) recognized the deficit in knowledge regarding exactly how EI relates to leadership specifically effective leadership. Combining a leadership model with an EI abilities model, a research study was conducted to determine if self proclaimed transformational leaders had higher EI compared to leaders viewed as transactional (Palmer, Walls, Burgess, & Stough, 2001). This study utilized recognized measurement tools to assess

the emotional response and leadership style of managers that were graduates from the Swinburne University Center for Innovation and Enterprise Program. The results from this study did not demonstrate a direct correlation between transformational leadership and high EI; however, correlations were noted between subsections (Palmer, Walls, Burgess, & Stough, 2001).

EI Research in Nursing

Interest for EI and nursing has been limited, but is experiencing some growing interest. Both psychology and business research has focused on emotional intelligence, but health care interest has lagged (Smith, Profetto-McGrath, & Cummings, 2009). In health care, there is a need for understanding the nuances of emotion and its influences in organizational work and healthcare leadership (George, 2000). Nursing specifically has been slower to develop emotional intelligence theory and research than other scholarly disciplines (Smith, Profetto-McGrath, & Cummings, 2009). Emotions are central to nursing and the importance of recognizing the emotional component of nursing care has been realized. According to Akerjordet and Severinsson (2007), caring is a core concept within nursing so it is imperative that discussions and research that investigates the nature and meaning of emotion and how EI fits into nursing practice is completed.

Reviews of nursing literature regarding emotional intelligence can be categorized into three sections. Emotional intelligence has been studied in regards to the nature of nursing, nursing education, and nursing leadership (Smith, Profetto-McGrath, & Cummings, 2009). The nature of nursing as a category proposes that nursing is obligated to be emotionally intelligent based on the relationships and responsibilities the nurse has towards patients (Smith, Profetto-McGrath, & Cummings, 2009). EI necessitates that emotions are recognized and understood in order to incorporate emotions that are experienced by the individual that affects the work of the

care delivery team (Druskat & Wolff, 2001). While nursing work involves both cognitive and technical skills, there has been increasing awareness of interpersonal and intrapersonal skills required to cope with the demands of complex patient care concerns (Bellack, 1999). It has been demonstrated that nurses use, consider, and analyze emotional information when decisions regarding practice are being made (Akerjordet & Severinsson, 2007). While the individual nurse is involved in the delivery of patient care, multidisciplinary care is concurrently provided. Emotions in the work environment must be recognized to impact the interdisciplinary team work that occurs (Freshwater & Stickley, 2004). Learning how to work in an emotionally intelligent way can help make nurses more resilient to the demands of patients, self, and teams (Habel, 2010).

Nursing education and emotional intelligence posits the necessity for nursing curricula revisions. The need to prepare students to delivery emotionally competent care has created three areas of attention. According to Smith, Profetto-McGrath, and Cummings (2009), students need to understand the emotional nature of nursing, need to have the emotional skills to deliver care, and need to have the competencies to effectively deal with the work environments. Nursing has been recognized to be an emotional experience, involving emotional knowledge and competencies, requiring nurses to be educated about the emotional realities of practice (Bellack, 1999). Structured programs have been suggested to improve the quality of nursing education in order to specifically develop self awareness (Cook, 1999). Studies suggest that the student with emotional intelligence competencies may be more successful throughout the educational process, in addition to managing future workforce issues (Bellack, 1999).

Emotional intelligence and nursing leadership remains the third category of study. Emotional intelligence is viewed as a leadership competency that benefits patient care, nurses

and organizations (Snow, 2001). It has been noted that the leader with high EI is able to positively influence patient care by motivating nurse to higher levels of decision making (Smith, Profetto-McGrath, & Cummings, 2009). The passion and energy of a highly emotionally intelligence leader is able to motivate and create an environment that strives for quality patient care outcomes. EI leaders are able to inspire trusting relationships as the leader understands the nature of nursing, patient care and the environmental impact of practice in relation to nurses' work (Vitello-Cicciu, 2003). The outcome of emotionally intelligent leadership reflects the ability to exert positive influence on dynamic environments (Davis, 2005). George (2000) suggests that EI is important for leaders as leadership creates the vision and enhances creativity. Emotionally intelligence leaders are able to impact knowledge and evidence based practice to promote the use of best practice within the practice environment (Smith, Profetto-McGrath, & Cummings, 2009). The highly emotionally intelligent leader according to Goleman (2002) is described as being able to move others towards a shared vision, having empathy for and developing relationships with others, sharing knowledge to empower others to innovate, having integrity and continually reminding people of the greater purpose of work.

While seeking to determine what leadership skills and attributes women would need to succeed in the 21st century, Carroll (2005) conducted a study that included nursing executives as a subsection of a study focused on women. The purpose of this particular study was to compare the perceptions of women leaders and nurse executives regarding skills and attributes that would be necessary for success (Carroll, 2005). For women leaders, including nurse executives, six factors were identified as attributes for success including personal integrity, strategic vision/action orientation, team building/communication, management and technical competence, people skills, and personal survival skills/attributes (Carroll, 2005). Variations were noted

between the women and the nurse executives, however, personal integrity including trustworthiness, ethical standards and credibility scored the highest in agreement (Carroll, 2005).

Within the dimensions of EI, team building/communication and people skills were recognized as significant. Carroll (2005) acknowledges that social competence is a key domain of emotional intelligence that includes competencies related to social awareness and relationship management. Leaders need to achieve behaviors that support the anticipated competencies in order to inspire commitment to the organization. Leadership is a dynamic process between leaders and followers (Kouzes & Posner, 2002). The underlying skill identified by the nurse executives was effective communication (Carroll, 2005). Within the EI constructs, social awareness for the nurse executive involves the ability to sense others emotions, understand others' perspectives, remain perceptive to the organizational currents, and recognizing the needs of both the staff and the patients (Carroll, 2005).

The delivery of care provided by nurses encompasses a vast variety of skill sets. Davies, Jenkins, and Mabbett (2010) sought to understand the value of emotional intelligence within the care delivered in the home. This study was a qualitative interpretative phenomenological analysis. This study focused on how the district nurses perceived and prioritized the four dimensions of EI as identified by Salovey and Mayer (1990). The district nurses perceived the importance of EI has been very important to the delivery of quality nursing care. Self-awareness and self-control were identified as leading attributes (Davies, Jenkins, & Mabbett, 2010). While the care requirements of the home bound patients vary, these district nurses "perceived that EI is particularly relevant with palliative care needs, supplements the comprehensive assessment processes, and is a prerequisite for enabling technical and caring aspects of practice to be delivered comprehensively" (Davies, Jenkins, & Mabbett, 2010, p. 146).

EI in Nursing Leadership

With the demands that are impacting health care today, responsiveness to change has been noted to be critical for all involved in the delivery of patient care. Strickland (2000) believes that the abilities of the leader specific to emotional intelligence will play a significant part in the staff's acceptance of change. It will be the leaders in the organization that help employees transition through the changes, provide support, information, guidance, and education necessary for the new demands on those providing care (Strickland, 2000). The leaders responsible for these transitions must have high EI quotients that complement their technical skills and intelligence quotients (Strickland, 2000). Specific to change, nursing leaders must possess high self regulation in order to accept and allow the individuals to react to change and transitions required to remain competitive. According to Strickland (2000), the nurse leader must allow people to experience their feelings without judgment, pressure, or guilt and to provide them with the tools to ensure their success. While transition and change within healthcare is becoming the norm, staff's acceptance remains difficult. The nursing leader and organization that exhibits high EI has been recognized as being more successful than organizations lacking in EI competencies (Strickland, 2000). The necessity for organizations to recognize and develop EI skills in leaders cannot be understated, but the reality remains that many organizations do not examine EI skill sets with the same degree of gusto as academic credentials and technical competencies (Strickland, 2000).

Emotional intelligence in health care leaders has been described as a combination of emotional maturity and energy (Freshman & Rubino, 2002). While industries have begun to embrace the attributes of EI and the importance of development, health care has been less inclined to embrace the need for development (Freshman & Rubino, 2002). While leaders within

the health care industry may not readily accept the need for EI education, academic preparation has recognized this deficit and is beginning to revise curriculum to integrate emotional aspects (Freshman & Rubino, 2002). Leading in a dynamic, often turbulent, environment requires the leader to demonstrate self awareness, reflection, intuition and compassion for both self and others (Freshman & Rubino, 2002). The health care leader that is able to maximize skill sets and competencies both emotionally, cognitively and technically will create a climate that will be beneficial to both individuals and the organization.

Feather (2009) notes that research studies are limited in nursing that assess and determine the effects of the managers' leadership style and staff job satisfaction based upon the nursing practice environment. EI has been recognized as a framework for measuring effective leadership behaviors and abilities in nursing leaders. Cadman and Brewer (2001) have identified the gap in the knowledge regarding the impact of EI levels of nursing leaders and the relationship with job satisfaction of the nursing staff. EI in nursing leadership has been identified as vital as health care leaders are responsible for meeting the needs of staff by helping them develop better interpersonal and communication skills, while remaining democratic and humanistic as leaders (Vitello-Cicciu, 2002). Successful organizations delivering health care have focused on enhancing self-awareness, self-management, social awareness and skills within the leadership ranks (Feather, 2009). Snow (2001) suggests that EI may be the most relevant clue for nurses about what makes a superior leader.

Eason (2009) believes that EI allows for the development of personal and social ability, with a focus on the foundation for one's actions. As a nursing leader, developing emotional intelligence is a method of developing the ability to focus on goal-based decision making and not be led totally by emotions (Eason, 2009). A core responsibility of a nurse leader, as identified by

Eason (2009), is the ability to demonstrate professional empathy in caring for patients and in managing organizations and personnel. Nurses tend to follow leader's directions when an atmosphere of trust and positive relationships exists between the two and is suggestive of a leader with a thorough understanding of EI (Eason, 2009). While EI attributes may be viewed as less concrete or soft skills, nursing leadership will be more effective when the leader understands the impacts of combining both emotional and critical thinking processes to decisions (Eason, 2009).

The use of emotional intelligence within aspects of nursing continues to be an area of interest. The relationships between EI and nursing practice, education, and leadership remain unclear and require more intentional study. The emotionally intelligent leaders' potential for impacting patient safety, quality outcomes, innovation, and organizational culture enhancements remains to be studied.

Summary of Organizational Climate, EI, and Nursing Leadership

The organizational climate of the acute care nurse has been noted to impact multiple aspects of care delivery. The aspects of organizational climate in the acute care hospital remain a multifaceted area of attention. The retention of skilled nurses providing bedside care is critical for the delivery of quality patient care. Climate or the nursing work environment has been demonstrated to contribute to the nurse's perception of the nursing unit. While variables differ, nursing leadership is a component to the organizational climate. The nurse leaders' ability to alter, support, and impact other components of the environment is significant.

Emotional intelligence identified leadership attributes that are measureable, which provides a baseline for growth. With the recognition of leadership strengths and areas of

improvement within the EI model, leadership development can be quantified. The nursing leader that has high EI is able to understand both self and other's responses to environmental considerations. It is the EI savvy nurse leader that is able to create an environment that is perceived to be a positive environment for providing quality patient care.

The literature that supports the importance of positive organizational climates and leadership-rich EI qualities remains limited regarding the impacts and contributions of high EI nurse leaders to organizational climate. The benefits of a positive working environment will become more critical as the demands for patient care delivery evolve to meet new patient related demands. Providing and maintaining a climate that is conducive to meeting those needs will be imperative. The nursing leader will be in a pivotal position to assist with creating an environment that addresses and responds to these new expectations.

CHAPTER 3. METHODOLOGY

The research was a quantitative, nonexperimental, descriptive study designed to determine relationships between emotional intelligence of nursing leaders and the practice work environment. The use of quantitative research designs assists with identifying relationships among variables (Creswell, 2009). The nursing practice environment consists of multiple attributes which contribute to the overall perception of the organizational climate. Within this study, the relationship between the level of emotional intelligence in nursing leaders and the nursing practice environment was assessed.

Research Design

Quantitative research seeks to "understand the relationships among variables using objective theories" (Creswell, 2009, p. 233). Assessing the magnitude and reliability of relationships is accomplished with the manipulation of numerical data through statistical procedures (Polit & Hungler, 1985). The situation and circumstances of the study are examined within the current setting and are not changed or modified. According to Leedy and Ormrod (2010), nonexperimental quantitative research is not intended to determine cause-and-effect relationships.

Nonexperimental research studies are prevalent in nursing literature when human beings are involved (Polit & Hungler, 1985). Several factors contribute to the selection of nonexperimental designs including situations when the independent variable is inherently nonmanipulable (Polit & Hungler, 1985). Three other reasons for conducting nonexperimental research include the aspect of variables that ethically should not be manipulated, not practical to conduct experimental research, or when the investigator observes the manifestations of some

event and tries to determine what factors have caused it. (Polit & Hungler, 1985). When the research is unable to control or manipulate the variables, nonexperimental research is the appropriate design option.

Within nonexperimental quantitative research, descriptive research is one of the broad classifications (Polit & Hungler, 1985). According to Leedy and Ormrod (2010), "descriptive research involves either identifying the characteristics of an observed phenomenon or exploring possible correlations among two or more phenomena" (p. 182). Within descriptive research there are four types consisting of observation studies, correlational research, developmental designs and survey research (Leedy & Ormrod, 2010). This study utilized correlational research in order to examine the levels of EI in nursing leadership and the relationship to the practice environment. According to Leedy and Ormrod (2010), a correlation exists if, and when, one variable increases, another variable either increases or decreases in some predictable fashion. The use of correlational research recognizes the premise of studying the area of interest as they presently exist (Polit & Hungler, 1985). Leedy and Ormrod (2010) caution that it is imperative to realize that correlational study results do not indicate causation.

Theoretical Framework

Research Questions

With the growing awareness regarding the importance of organizational culture and climate, nursing leadership is in a pivotal position to focus on the attributes and opportunities for improving the current environment. What aspects of the nurse leader enhance the ability to positively impact or change organizational climates of nursing units? Higher emotional intelligence has been demonstrated in the literature to improve interactions with others. High EI

leaders are able to approach and interact with others, which when done in a constructive manner improves relationships. Research within the nursing literature is limited regarding emotional intelligence in nursing leaders and work environments. As a result, research questions specific to this focus area include

RQ1: What is the relationship between the emotional intelligence level of nursing leaders and the nursing practice environment?

RQ2: What is the difference between the emotional intelligence level of the nursing leaders for Magnet designated organizations, organizations on the Magnet journey and non-Magnet designated organizations?

Hypotheses Statements

Based on the review of literature, this research suggests that the emotional intelligence of the nurse leader may impact the nursing practice environment and the perception of the nurse manager within the practice environment. Additionally, it is suggested that nurse leaders with higher EI's will be affiliated with Magnet designated organizations or those involved with the Magnet process (Aiken & Patrician, 2000). The following hypotheses reflect the proposed relationships in this study:

Ho1: There is not a significant relationship between a nurse leaders' ability to appraise and express emotion (SEA) and the nursing practice environment score.

H_A1: There is a significant relationship between a nurse leaders' ability to appraise and express emotion (SEA) and the nursing practice environment score.

Ho2: There is not a significant relationship between a nurse leader's ability to use emotion in others (UOE) and the nursing practice environment score.

H_A2: There is a significant relationship between a nurse leader's ability to use emotion in others (UOE) and the nursing practice environment score.

Ho3: There is not a significant relationship between a nurse leaders' ability to understand emotion (OEA) and the nursing practice environment score.

H_A3: There is a significant relationship between a nurse leaders' ability to understand emotion (OEA) and the nursing practice environment score.

Ho4: There is not a significant relationship between a nurse leaders' ability to regulate their emotion (ROE) and the nursing practice environment score.

H_A4: There is a significant relationship between a nurse leaders' ability to regulate their emotion (ROE) and the nursing practice environment score.

Ho5: There is not a significant difference in the emotional intelligence level of the nursing leaders and organizations with and without the Magnet designation.

H_A5: There is a significant difference in the emotional intelligence level of the nursing leaders and organizations with and without the Magnet designation.

Research Design Strategy and Target Population

This study was a cross sectional survey that seeks to solicit input from nursing leaders in a state in the Midwest region. According to Pace (2010), there are 192 health care organizations in the state. Each of these organizations has identified a chief nursing officer (CNO) as the leader of the nursing division, with nursing leaders reporting to the CNO. The target population for this study was the nurse leaders in the identified state. The sampling group for this study was the state's organization of nursing leaders.

The state's organization has 399 registered nursing members. The membership supports multiple levels of nursing leadership roles, specifically focused on nurse manager, nurse director

and CNO. Nursing students working with nursing administrative programs are invited to participate in the organization. Additionally, nursing leaders from alternative health care settings, such as rehabilitation organizations are also members (Brooks, 2010). Only the nursing leaders identified by the organization to be employed by acute care organizations were sent emails requesting participation in the study.

The survey tools included self-reported measures of leadership's emotional intelligence (WLEIS) and nursing practice environments (PES-NWI). Two surveys assessing emotional intelligence and nursing practice environments were available using an online survey services. Magnet status information was asked in order to determine differences in emotional intelligence levels of nurse leaders for Magnet, organizations working towards this designation and non-Magnet designated organizations.

Sample

A random sampling of the state's nursing leaders was used for this project. The 399 state members were used to randomly identify 291 members using the Random Allocation software. Using a 37 % return estimation, 291 members were randomly identified in an effort to achieve the identified surveys return rate (Sheenan, 2001). Those members randomized were emailed an explanatory letter requesting their participation in this research project. The list of state membership information for nursing leaders employed by acute care health care organizations was provided by the organization with permission to use by the organization's executive president. Participation remained voluntary. Included with the email request was information regarding aspects of the study in order to provide study highlights for those participating. In order to assist with appropriate survey return rates, email reminders were sent out seven and 14

days after the first email request was sent. The second and third email request reiterated the importance of the study, in the hope that more participants would complete the survey. The reminders were sent to the same random sample of state members. A three week timeframe was established for the completion of the data collection.

Green (1991) proposed that a relationship of direct proportion exists between the sample size and the total number of variables. Green's approach is to include eight responses per variable plus a modifier of 50 to be added in order to declare dependability when sample sizes are small. Expressed as an equation, this approach yields the following:

$$N \geq (8 \text{ x } V) + 50$$

in which N is the minimum acceptable number responses and V is the number of variables in a study. For this study, there were five variables, so the sample size was calculated as follows:

$$N = (8 \text{ x } 5) + 50 = 90$$

In addition, the sample size necessary for this study was estimated using G*Power 3.0 software (Faul, Erdfelder, Lang, & Buchner, 2007). According to Cohen (1988), for regression analysis, the estimated size of the sample depends on four parameters: (1) the chosen significance level (α) of the test, (2) your desired level of statistical power (1 – β), (3) an effect size parameter and (4) the number of predictor variables. Effect sizes of 0.02, 0.15, and 0.35 are considered small, medium, and large, respectively (Cohen, 1988). The effect size can be calculated using the G*Power software (Faul, Erdfelder, Lang, & Buchner, 2007). To calculate the effect size one must have an estimate of the coefficient of determination, R^2, value for the regression. The R^2 value for this study was unknown, and while it could be extremely small, it is likely that it would be at least 0.15, if the regression is statistically significant. The effect size for a R2 of 0.125 was calculated to be 0.176, which is a medium effect size according to the scale

outlined above by Cohen (1988). For a regression analysis with one predictor variable, power = 0.95, $\alpha = 0.05$, and effect size of 0.176, the estimated sample size was equal to 76. Therefore, the minimum sample size will be 90 since it is the larger of the two estimates.

Research that is designed accurately must guarantee that power will be reasonably high to detect reasonable departures from the null hypothesis (Faul, Erdfelder, Lang, & Buchner, 2007). After the sample was collected, post-hoc power analysis was conducted to ensure that the power is adequate.

Instrumentation/Measures

Utilizing an online survey tool, informed consent was collected prior to the initiation of data collection. The informed consent was necessary in order to proceed to the next section. After reading the informed consent, the action of agreeing to continue and complete the survey was indicated by the action of clicking to the next screen. The survey consisted of three sections: the two questionnaires and one follow up question regarding Magnet status. The two surveys were the Practice Environment Scale-Nursing Work Index (PES-NWI) (Lake, 2002) and the Wong and Law Emotional Intelligence Scale (WLEIS; Wong & Law, 2002). Permission was obtained from the authors to utilize both survey instruments.

The practice environment scale was developed from the established nursing work index (PES-NWI). The intent for this tool's creation was to have a parsimonious, psychometrically sound scale with subscales to further define attributes of nursing work environments (Lake, 2002). Lake (2002) acknowledged that nursing environments are complex constructs to conceptualize and measure and used sociology of organizations and work as a theoretical foundation. The nursing leaders are in a pivotal point to make decisions that impact multiple

aspects of the nursing environment. "In any particular hospital the nursing practice environment reveals the hospital managers' approach to resolving the dilemmas of organization and work" (Lake, 2002, p. 177).

The PES-NWI is a 31-question 4-point Likert scale instrument (Lake, 2002). The higher the score indicates the better the practice environment is perceived by staff. This tool provides a composite score which provides a single measure of the environment (Lake, 2002). The PES-NWI has five subscales including nursing foundations for quality of care, nurse participation in hospital affairs, nursing manager ability, leadership, and support, staffing and resources adequacy, and collegial nurse-physician relations (Hanrahan, 2007). Using this specific tool to measure nursing perceptions, the higher the practice score, the more positive the practice environment (Li et al., 2007). Specific to leadership, Lake (2002) observed that effective" nurse managers are able to support nurses when there is conflict with a physician and when nurses make mistakes, and to praise and recognize a job well done" (p. 182). The dominant feature within this subscale is the nurse manager is a good manager and leader (Lake, 2002). This tool has been recognized and adopted by both the National Quality Forum and the American Nurse Association's National Database of nursing Quality Indicators as a reliable and valid set of measures of the nursing environment in the hospital (Hanrahan, 2007).

The Cronbach's alpha value for the composite score is .94, with the five subscales ranging from 83 to .87 (Liou & Cheng, 2009). Staffing and resource adaquacy's Cronbach alpha was .85, collegial nurse-physician relations, .84, nurse manager ability, leadership, and support of nurse, .86, nursing foundation for quality of care, .83 and nurse participation in hospital affairs, .87 (Liou & Cheng, 2009). The intraclass correlations of the five subscales and the entire scale were .86 to .97 and .96 respectively (Liou & Cheng, 2009). Within the 31-items, five-items

are specific to the nurse manager ability, leadership, and support of nurse domain, specifically item numbers 3, 7, 10, 13, and 20 (Lake, 2002).

Emotional intelligence has been demonstrated to influence leadership effectiveness (Wong & Law, 2002). Leaders have been shown to affect the performance of their subordinates by supporting their feelings of self worth (Dansereau et al., 1995). Wong and Law (2002) posit good leaders need to have good understanding of their own emotions as well as others and are able to regulate those emotions when interacting with others. A core element of a leader is the ability to play different roles at different times specifically selecting the right role for the situation (Boal & Hooijberg, 2000). EI has been viewed in the leadership literature as a core variable that affects leader effectiveness (Wong & Law, 2002).

Wong and Law (2002) sought to understand the role of EI in leadership effectiveness and identified a void with tools that utilized self-reporting as a type of measurement. A short, psychologically sound yet practical measure of EI was created (Wong & Law, 2002). This tool is a 16-item scale titled the Wong and Law Emotional Intelligence Scale (WLEIS; Wong & Law, 2002). A seven-point Likert scale is used for this measurement tool, with a 1 equaling strongly disagree and a 7 meaning strongly agree (Law, Wong, & Song, 2004). With the workplace environment targeted, Wong and Law developed a tool that was psychometrically sound, brief, and focused on leaders (Wong & Law, 2002).

Using the four dimensions (self-emotion appraisal, use of emotion, regulation of emotion, and others' emotion appraisal) as a foundation, Wong and Law sought to ensure that this tool measured the respective dimensions of EI. Two cross-validation studies using relationship criteria including life satisfaction and powerlessness were conducted (Wong & Law, 2002). The results of the confirmatory factor analysis demonstrated that all four items loaded on their

respective EI dimensions with a comparative fit index (CFI) of .95 and .91 respectively (Wong & Law, 2002). The research showed a positive correlation ranging from .16 to .46 between the WLEIS and the life satisfaction measure, thus achieving criterion related validity (Teehan, 2006). A negative correlation was demonstrated with the EI measure and powerlessness ranging from -.13 to -.39 (Law, Wong, & Song, 2004). An exploratory factor analysis on the EI and Big Five personality dimensions was completed to test the convergent and discriminant validities of the EI tool (Wong & Law, 2002). Wong and Law (2002) concluded that there was good convergent and discriminant validity between the EI tool and the Big Five personality dimensions.

Utilization of this tool within the nursing arena has been documented in studies that focus on ethics, job satisfaction, organizational citizenship behaviors, and nurse to nurse hostility. The WLEIS was used with each of these studies soliciting nurses from areas of the United States to countries abroad, including Nigeria and Turkey (Deshpande & Joseph, 2009; Guldal, Guney, Aydin, & Asan, 2008; Jones & Argentino, 2010; Salami, 2007). In the Deshpande and Joseph (2009) study, the Cronbach alpha was 0.92. The coefficient alpha for the composite WLEIS in the nurse to nurse hostility study was 0.91 (Jones & Argentino, 2010). Salami (2007) reported the Cronbach alpha scores for the four domains ranged from 0.83 to 0.90. The use of this tool in the nursing population has been gaining popularity for the simplicity and ease of use (Deshpande & Joseph, 2009).

Further efforts sought to demonstrate the effectiveness of the WLEIS in the organizational setting. Two additional studies conducted to determine if the findings could be generalized to experienced workers (Law, Wong, & Song, 2004). These studies indicated that the WLEIS did predict the effects of emotional intelligence on job satisfaction and role behaviors

(Law, Wong, & Song, 2004). Wong and Law (2002) reported internal reliability alphas for the four dimensions of EI. This relatively new tool has been demonstrated to have reliability and validity for assessing EI in the workplace.

The organization's Magnet status will also be collected. While Magnet designation is a reflection of nursing excellence, many organizations are working towards creating this culture on are actively involved with the Magnet model. Those organizations will be considered on the Magnet Journey. Other organizations will not be actively pursuing this designation and will not be on the Magnet Journey.

Data Collection

This study utilized self-reported survey collection methods, which is a method in organizational research for assessing phenomena that are not directly observable (Swanson & Holton, 2005). This cross-sectional design studies the variation of interest from one another at a single point in time (Glock, 1988). Online survey collection has been demonstrated to provide a cost effective, efficient, flexible and possibly a less threatening approach (Swanson & Holton, 2005). While online surveying techniques have identified benefits, the risks of error, expertise, and ethics should not be minimized.

An introductory email was sent to the state nursing leaders providing an explanation of the study along with directions for participation. Included in this email was contact information for any unresolved questions or concerns. Instructions for accessing the appropriate account with the online survey provider were provided. This correspondence also addressed confidentiality issues including privacy. This request for participation included the concern for voluntary participation.

The two individual survey tools and Magnet question were available using a commercial website for data collection. Before beginning to answer the surveys, a consent form was required to be read with agreement and acceptance being a required step in the online process. At any time during the survey process, the participant may select to not participate and opt out of the computer session. After completing the surveys, the participant was finished and the participation was completed.

Data Analysis

In this study, the data was analyzed using Statistical Package for the Social Sciences (SPSS) version 16.0. Measures of internal reliability were obtained by computing the Cronbach's alphas for each of the four dimensions of the EI measure and the composite of the PES-NWI. Multiple regression analysis was used to determine the effects of the independent variables (four subscale scores) on the dependent variable (composite score of PES-NWI). According to Sproull (1988), multiple regression is used for predicting a criterion and for testing hypothesized relationships between predictors and a criterion. "Multiple regression analysis examines the relationship between a single dependent variable and two or more independent variables" (Swanson & Holton, 2005, p. 118).

Analysis of the data provided insight into the extent the independent variables, which were the four EI dimension scores, had on the dependent variable of the practice environment score. Statistical testing occurred to test for statistical significance between the independent variables and the dependent variables. Potential relationships between the composite score for overall EI were assessed in regards to the organization's Magnet status.

Testing assumptions with multiple linear regression was a necessary step in the analysis. Key assumptions for multiple linear regression analysis include a linear relationship, multivariate normality, little or no multicollinearity, no auto-correlation and homoscedasticity (Statistics Solutions, 2010). Multiple linear regression needs to the relationship between the independent and dependent variables to be linear, which can be tested with scatter plots (Statistics Solutions, 2010). Variables are required to be multivariate normal determined by either a histogram and a fitted normal curve or a Q-Q plot (Statistics Solutions, 2010). Independence as an assumption is checked with four key criteria including correlation matrix, tolerance, variance inflation factor, and condition index (Statistics Solutions, 2010). Factor analysis before regression analysis resulting in rotating the factors to ensure independence of the factors remains an option (Statistics Solutions, 2010). The scatter plot is a means for assessing homoscedasticity and autocorrelation (Statistics Solutions, 2010). If the data violates any of the assumptions and cannot be corrected, non-parametric tests were not used.

Ethical Considerations

Specific ethical considerations must be addressed regardless of the type of research being conducted. The overarching ethical concerns that will be maintained include the right to free consent, right to informed consent, right to confidentiality, right to privacy and the right to anonymity (Sproull, 1988). The ethical considerations were adhered to and addressed via the online survey format, specifically informed consent, confidentiality, privacy and anonymity. The right to free consent was emphasized to the nursing leaders involved with the random sampling request. Follow up email requests were sent to the nursing leaders at determined intervals. Institutional review board approval was obtained prior to initiation of the study.

Informed consent was ensured with the intentional acceptance prior to initiating any of the survey collection. The participant understood the purpose of the study and made the decision to participate. Face to face interaction did not occur, although contact information was made available for questions or concerns. The process of informed consent was obtained electronically for all participates. Survey results have been stored on a flash drive and will be maintained for a period of seven years in a locked location. The data was erased from the computer hard drive at the completion of the study. The computer access remained limited and was password protected. Additional security options were purchased from the online survey vendor. While no study is risk-free, there was not any identifiable risk issues identified that the nursing leaders participating in this study would be exposed to.

The researcher's bias is noted as the researcher is a professional nurse that practices in the acute care setting. There are not conflicts of interest identified, other than membership in the state nursing organization used for the sample. The online survey process did not allow for individual identification so membership in this organization was not an issue.

Timeline

Upon review and approval process, email communications were sent to the randomized state members as identified. A three-week time frame was provided to solicit and complete surveys for this study.

Summary

A quantitative, non-experimental, descriptive study was conducted seeking to determine the relationship between the EI of a nurse leader to the practice environment score. The independent variables were the dimensions of the EI, while the dependent variable was the practice environment composite from the PES-NWI. A comparison between hospitals with Magnet designation was studied. A random sampling technique was used for the soliciting of nurse leader participants from identified state. An online survey service was used for obtaining both informed consent and measurement tool responses. Statistical analysis specific for the hypotheses was conducted to determine if any relationships exist between the independent and dependent variables. Attention to limitations was considered and addressed as applicable.

CHAPTER 4: RESULTS

Introduction

This study sought to determine what type of relationship existed, if any, between the level of emotional intelligence in the nursing leader and the nursing practice environment. The relationship to Magnet designation was also assessed. A one-time cross sectional study using a random sampling from the state's nursing leadership organization was used for data collection. Two online survey tools, the Practice Environment Scale-Nursing Work Index (PES-NWI) and the Wong and Law Emotional Intelligence Scale (WLEIS) were used to measure elements of the nursing environment and nursing leadership. An additional question regarding Magnet designation was asked seeking to determine if there was a relationship between Magnet status and the emotional intelligence level of nursing leadership. This chapter describes the results of the survey and provides an analysis of the data gathered from the sample.

Survey Administration

Online requests for participation were sent to 299 randomly selected members of the state organization. Of the initial 299, 278 emails were delivered with 21 requests for participation returned as undeliverable. A three week timeframe was established for the collection period, with reminders being sent to all nursing leaders in the sample group at day seven and day 14. At the end of the survey period, 100 nursing leaders had participated in the survey. Of those 100 surveys, only 63 of the surveys had all the questions answered. 37 of the surveys were not able to be included as missing data would impact the scores for both survey tools utilized. Using only the completed surveys, the response rate for usable surveys was 22.6%. These surveys were

coded into and analyzed using SPSS 16.0. A confidence level of $\alpha = .05$ was used for data analysis.

Calculation of the Dependent and Independent Variables

The PES-NWI is a 31-question, 4-point Likert-type scale instrument (Lake, 2002). For the PES-NWI, a composite score was calculated by totaling the scores for the 31 questions. With the results calculated using this method, the range for the composite score was 31 to 124. A second more popular method for calculating the composite score is obtaining the mean from each of the five categories and determining the composite mean score from the five category means (Lake, 2002). Using this calculation method, the range of the composite score for the PES-NWI is 1 to 4. The higher the score indicates the better the practice environment as perceived by staff. Scores of 2.5 or greater are considered to indicate a good practice environment (Lake, 2002).

Wong and Law (2002) created a tool that is a 16 item scale titled the Wong and Law Emotional Intelligence Scale (WLEIS), which uses a seven point Likert scale with a one equaling strongly disagree and a seven indicating strongly agree. The WLEIS is comprised of four dimensions: self-emotion appraisal, use of emotion, regulation of emotion, and others' emotional appraisal. Each subscale has four questions which are averaged to obtain the score for the individual subset. A neutral or average subscale score is four, scores significantly less than 4.00 indicate lower levels of emotional intelligence and scores significantly greater than 4.00 indicate higher levels of emotional intelligence (Law, Wong & Song).

To obtain measures of internal consistency or reliability used in this research, the Cronbach's alphas were computed. The Cronbach's alpha is a measure of internal consistency or inter-item correlation of an instrument (Swanson & Holton, 2005). Cronbach's alpha coefficients

range from 0 to 1. This metric determines the extent to which all the items within a single instrument yield the same results (Leedy & Ormrod, 2010).

Cronbach's alpha was 0.924 for the 31 questions of the PES-NWI survey (Table 2). The WLEIS survey has four subscales representing the independent variables resulting in reliability being assessed for each subscale. For the SEA subscale, the Cronbach's α was equal to 0.830 (n = 4), for the OEA subscale, Cronbach's α was 0.711 (n = 4), the UOE subscale's Cronbach α was 0.779 (n = 4), and the ROW subscale's Cronbach α was 0.927 (n = 4). (Table 2).

Nunnally (1978) identified that an instrument is acceptable with a Cronbach's alpha greater than 0.70. The Cronbach's alpha values for this study were all greater than 0.70 (Table 2). Guidelines for interpretation according to DeVellis (1991) are "below .60, unacceptable, between .60 and .65 undesirable, between .65 and .75, minimally acceptable, .70 and .80 respectable and between .80 and .90 very good" (p. 85). The reliability of the PES-NWI survey scale is very good as it is greater than 0.90, along with the ROE subscale score. The SEA subscale score is greater than 0.80 so it has good reliability. The OEA and UEO subscales are acceptable as the Cronbach alpha's for both are greater than 0.70. Both survey instruments demonstrate acceptable internal reliability for this study.

Table 2: Cronbach's Alpha

Scale	Cronbach's Alpha	*N* of items
PES-NWI	0.924	31
SEA	0.830	4
OEA	0.711	4

Cronbach's Alpha (continued)	0.779	4
UOE		
ROE	0.927	4

Analysis of Results

For the PES-NWI, the composite mean score was 3.21 (s.d. = 0.13, Table 3) which is indicative of a good practice environment. Calculating individually, the mean score was 100.41 (s.d. = 10.726). For the WLEIS, the mean score for the self-emotional (SEA) subscale was 5.32 (s.d. = 0.567), and the mean score for the others' emotional appraisal (OEA) subscale was 5.12 (s.d. = 0.607, Table 3). The mean score for the use of emotion (UOE) subscale was 5.39 (s.d. = 0.581) and the mean score for the regulation of emotion (ROE) subscale was 5.11 (s.d. = 0.829, Table 3). All of the subscale scores are indicative of higher levels of emotional intelligence because they are all greater than 4.00. In fact, they are higher than the mean scores reported by Wong & Law (2002), which range from 4.50 to 4.71.

Table 3. Dependent and Independent, Descriptive Statistics

	Mean	Std. Deviation	N
PES-NWI	3.21	0.130	63
SEA	5.32	0.567	63
OEA	5.12	0.607	63
UOE	5.39	0.581	63
ROE	5.11	0.829	63

Using the simultaneous entry process, the independent variables were entered into the regression model at the same time. According to Swanson and Holton (2005), this method is used for identifying an optimal set of predictors capable of producing a statistically significant regression model. This method "allows for testing of hypotheses for predictive power of individual variables when unsure of how the predictors might work together" (Swanson & Holton, 2005, p. 119). A multiple linear regression analysis was conducted to test the following hypotheses:

Ho1: There is not a significant relationship between a nurse leaders' ability to appraise and express emotion (SEA) and the nursing practice environment score.

H_A1: There is a significant relationship between a nurse leaders' ability to appraise and express emotion (SEA) and the nursing practice environment score.

Ho2: There is not a significant relationship between a nurse leader's ability to use emotion in others (UOE) and the nursing practice environment score.

H_A2: There is a significant relationship between a nurse leader's ability to use emotion in others (UOE) and the nursing practice environment score.

Ho3: There is not a significant relationship between a nurse leaders' ability to understand emotion (OEA) and the nursing practice environment score.

H_A3: There is a significant relationship between a nurse leaders' ability to understand emotion (OEA) and the nursing practice environment score.

Ho4: There is not a significant relationship between a nurse leaders' ability to regulate their emotion (ROE) and the nursing practice environment score.

H_A4: There is a significant relationship between a nurse leaders' ability to regulate their emotion (ROE) and the nursing practice environment score.

The regression model was constructed by entering all four independent variables into the regression analysis. The results of the multiple linear regression analysis that was conducted between the dependent variable, nurse practice environment as measured by the PES-NWI and the four independent variables represented by the subscales of the WLEIS indicated that there was a significant relationship. The null hypotheses were rejected and the alternative hypothesis were accepted ($F = 5.\ 904$, $p = 0.000$, Table 4). Thus, the linear relationship between the WLEIS subscale scores (SEA, OEA, UOE, ROE) and the nursing practice environment was significant.

Table 4. Results of the Multiple Linear Regression Analysis Conducted on the Dependent Variable, Nursing Practice Environment as Measured by the PES-NWI and the Independent Variables Represented by the Four Subscale of the WLEIS

	Sum of Squares	Df	Mean Square	*F*	Significance (*p*)
Regression	2064.144	4	516.036	5.904	.000
Residual	5069.126	58	87.399		
Total	7133.270	62			

The correlation coefficient (R) for the multiple regression analysis is 0.538, and is a significant correlation as the p-value is 0.000 (Table 5), which is less than the alpha of 0.05. Because the correlation coefficient is positive, the dependent variable, nursing practice environment, and the independent variables are related such that as the WLEIS subscale scores increase, the nursing practice environment scores increase. The higher the emotional intelligence of the nurse leaders for the subscales of the WLEIS, the better the nursing practice environment can be a conclusion reached based on the study results. The R^2 value for the model was 0.289 (Table 5), which indicates that 28.9% of the variability in the nursing practice environment can

be explained by the independent variables, represented by the four subscale of the WLEIS, thus 70.1% of the variability in the dependent variables was not explained by the model. The R^2 is a "measure of the proportion of variation of the dependent variable about its mean that is explained by the independent variable" (Swanson & Holton, 2005, p. 121).

Table 5. Correlation Coefficient (R), R^2, Durbin-Watson Statistic for the Multiple Regression Model

Metric	Value	Sig.
Correlation Coefficient (*R*)	0.538	0.000
R^2	0.289	
Durbin-Watson (*d*)	2.035	

Assumptions of Regression

Testing for violations of assumptions must be completed when conducting the analysis of data. According to Swanson and Holton (2005), there are four assumptions made when using multiple regression. These assumptions include linearity of the relationship between criterion and predictor variables; constant variance of the error term (homoscedasticity), normality of the error term distribution, and the independence of residuals. Additionally, attention regarding the presence of substantial intercorrelations (multicollinearity) must be determined (Swanson & Holton, 2005). Influential and independence of observations (autocorrelation) was also tested.

The variables measured in the study were near-interval data, as the data was collected using a Likert-type scale. In a recent review of the literature on this topic, Jaccard and Wan (1996) summarize, "for many statistical tests, rather severe departures (from intervalness) do not seem to affect Type I and Type II errors dramatically" (p.4). The Likert scale data can be

considered to be near enough to interval data for the purposes of this study, so the assumption was not violated.

Multiple regression analysis accurately estimates the relationship between the dependent variable and the independent variables, only if the relationship is linear (Osborne & Waters, 2002). If the relationship between independent variables and the dependent variables is not linear, the results of the regression analysis will under-estimate the actual relationship (Pedhazur, 1997). Residual plots are plots of the standardized residuals as a function of standardized predicted values, and are used to detect non-linearity (Berry & Feldman, 1985; Cohen & Cohen, 1987; Pedhazur, 1997). When a residual plot displays a random pattern of data points, the assumption of linearity is considered valid, whereas a curved pattern or a trend up or down in the data points indicates non-linearity (Cohen & Cohen, 1987). As shown in Figure 1, the data is scattered in a random pattern, thus linearity has not been violated for the multiple regression analysis. With normal distribution, the scatter plot is centered and gathered in a rectangular pattern (Tabachnick and Fidell, 2007).

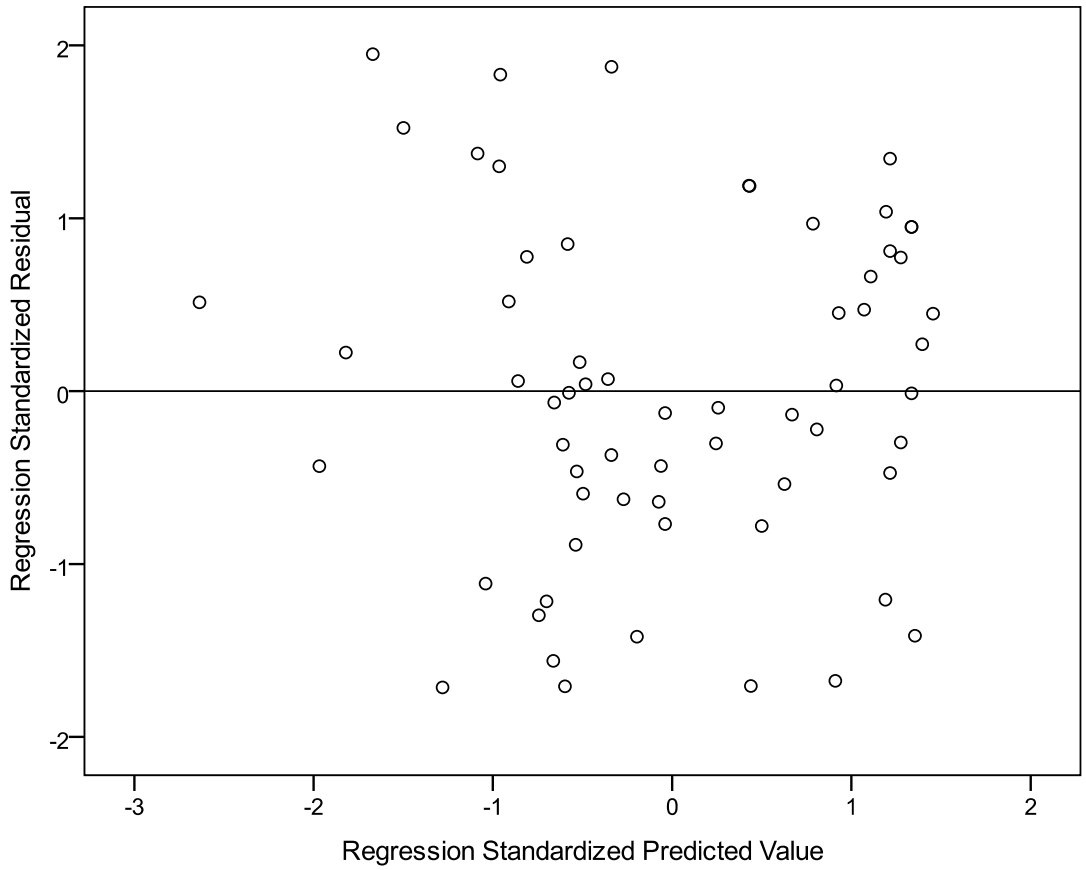

Figure 1. Residual plot for the multiple linear regression analysis

Multivariate outliers are defined as cases with extreme values with respect to multiple variables (Swanson & Holton, 2005). Multivariate outliers occur when cases that have a Cook's Distance greater than an identified endpoint. Cook's distance is used for assessing influence in regression models (McDonald, 2002). Researchers often use an endpoint of 1.0 as an operational guide for a cutoff (Chatterjee, Hadi, & Price, 2000), but McDonald (2002) recommends, "for datasets with $n > 15$, we can consider points as influential: if $Di > 0.7$ for $p = 2$ (two predictors), if $Di > 0.8$ for $p = 3$ (three predictors), and if $Di > 0.85$ for $p > 3$ (more than three predictors)." (p. 128). For this study, Cook's Distance was 0.023, which is much less than 0.85, therefore, there were no significant outliers in the dataset.

Multivariate normality can best be checked with a histogram and a P-P Plot (Norusis, 2008). Figure 2 depicts the distribution of the residuals, and this histogram indicates that the residuals are normally distributed for the multiple linear regressions analysis conducted. In a normal P-P probability plot, the normal distribution is represented by a straight line angled at 45 degrees, with the cluster points expected to be along the straight line (Norusis, 2008). The standard residuals are compared against the diagonal line to show the departure, and if the residuals follow along the straight line, it means that the departure from normality is slight (Osborne & Waters, 2002). The P-P plot for normality (Figure 3) demonstrates that there are no serious deviations from normality since the points fall very near or on the line.

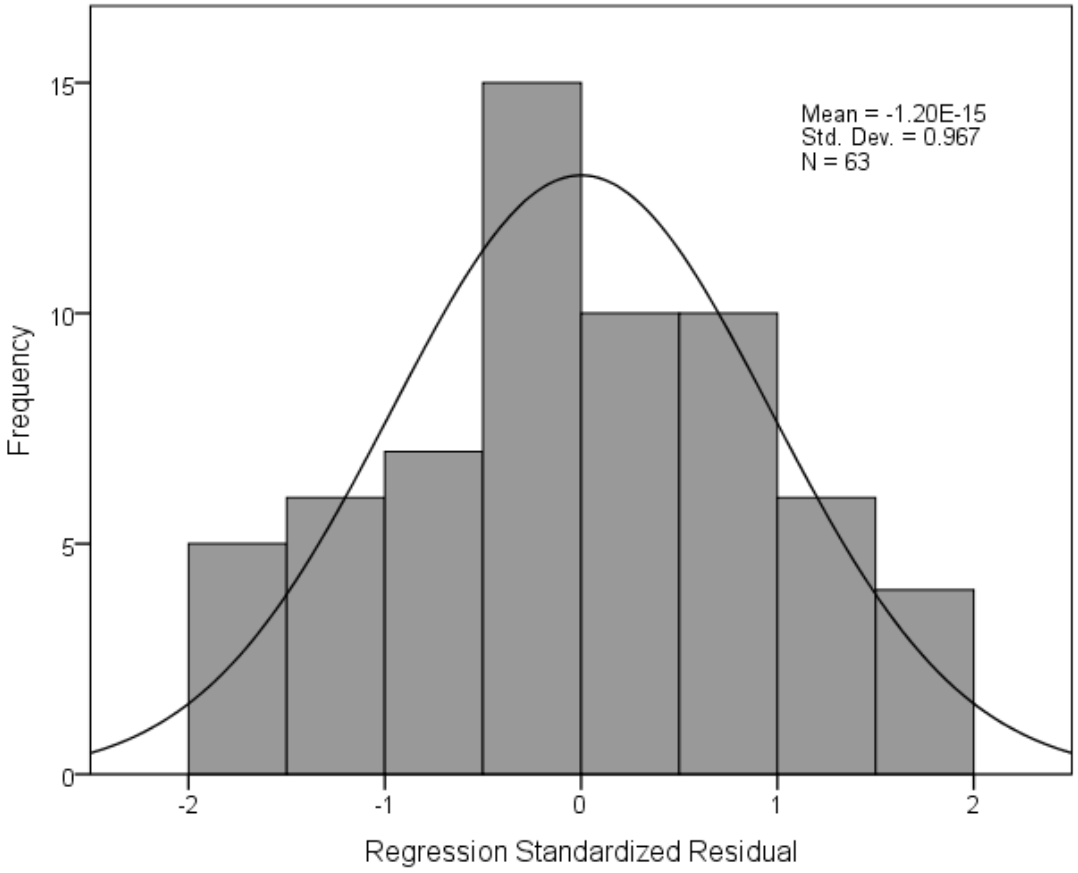

Figure 2. Histogram of the residuals for the multiple linear regression analysis.

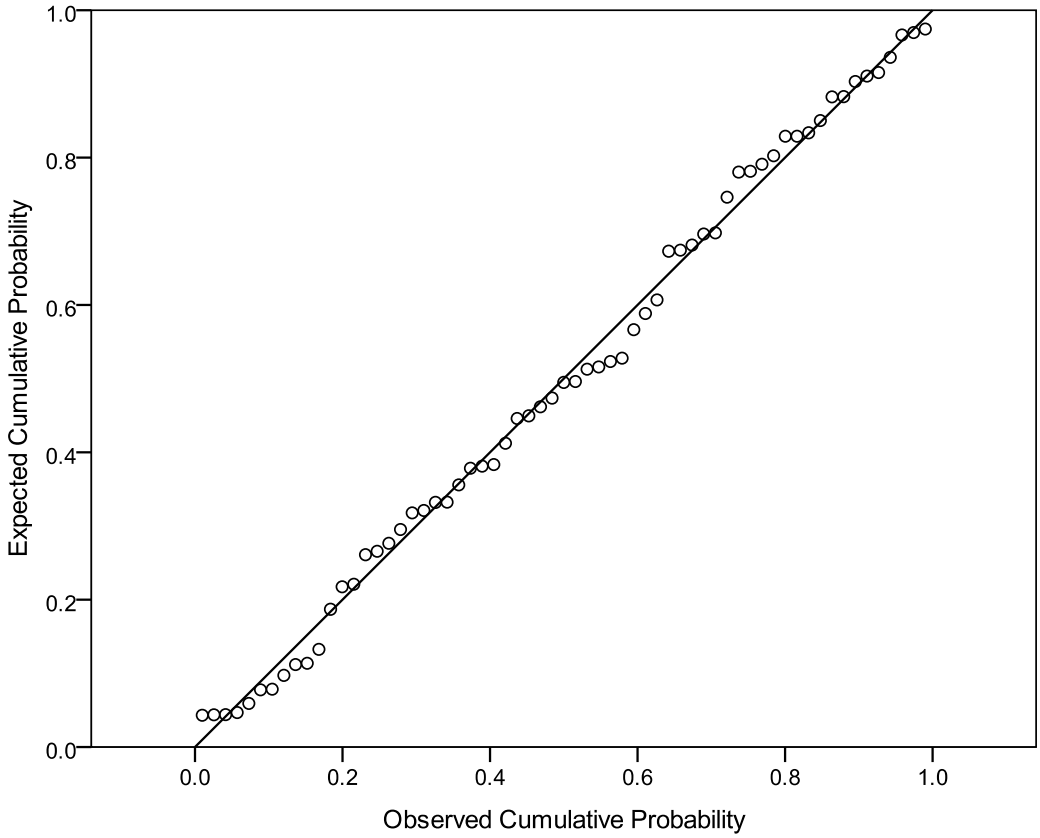

Figure 3. P-P plot of the regression standardized residuals for analysis

According to Tabachnick and Fidell (2007), the variance of the residual error should be the same for all predicted scores. A residual plot is a plot of the standardized residuals by the regression standardized predicted value, and can be visually checked for homoscedasticity (Osborne & Waters, 2002). The plots of the standardized residuals versus the standardized predicted values do not show any patterns of heteroscedasticity, therefore, the data is homoscedastic (Figure 1). Heteroscedasticity results when the values are more dispersed than expected (Webster, 1998).

Multiple linear regression analysis assumes that there is little to no multicollinearity in the data. Multicollinearity occurs when the independent variables are related to each other. The

variance inflation factor (VIF) of the linear regression can be used to assess multicollinearity. The rule of thumb is that VIF > 4.0 when multicollinearity is a problem (Garson, 2008). For this study, the VIF was less than 4.0 for all four predictors (independent) variables (Table 6); therefore, multicollinearity was not a problem for these variables.

Table 6. Variance Inflation Factor (VIF) for the Independent Variables

Independent variable	VIF
SEA	2.77
OEA	2.10
UOE	1.27
ROE	1.87

Durbin-Watson's *d* tests the null hypothesis that the residuals are not linearly autocorrelated. The Durbin-Watson coefficient, *d*, measures autocorrelation and can range from 0 to 4 (Norusis, 2008). Values close to 2 indicate no serial autocorrelation so d should be between 1.5 and 2.5 to confirm independence of observations (Cohen & Cohen, 1987). For this study, *d* is 2.035, which is very close to 2.00 and indicates no serial correlation. This indicates that observations are independent. The assumptions associated with multiple linear regression were assessed. Based on the results of the assessment, this data set did not violate the assumptions.

The final hypothesis seeks to determine if a relationship exists between the overall EI score of the nurse leader and the status of their organization's status regarding Magnet designation. The one-way analysis of variance (ANOVA) measures the difference between

variation between samples and variation within samples (Webster, 1998). ANOVA testing was completed for the following hypothesis:

Ho5: There is not a significant difference in the emotional intelligence level of the nursing leaders and organizations with and without the Magnet designation.

H_A5: There is a significant difference in the emotional intelligence level of the nursing leaders and organizations with and without the Magnet designation.

Table 7 portrays the statistics for the emotional intelligence scores for the three Magnet designations groups. The group with the Magnet designation, On the Journey, had the highest mean emotional intelligence score (5.36, s.d. = 0.62), followed by Journey Not Started (5.21, s.d. = 0.46) and Journey Achieved (5.17, s.d = 0.52). An Analysis of Variance (ANOVA) was conducted to determine if there is a significant difference in the mean emotional intelligence score for the three groups. Since the significance for the ANOVA (*p*-value) is 0.534 (Table 8), which was greater than the alpha 0.05, the null hypothesis that there is not a significant difference in the emotional intelligence level of the nursing leaders for the three Magnet designations could not be rejected. It can be concluded that there is not sufficient evidence to conclude that there is a significant difference in the mean emotional intelligence scores for the three groups.

Table 7. Sample Size (N), Mean, and Standard Deviation for the EI Scores in the Three Designations

Magnet Designation	N	Mean	Std. Deviation
Journey Achieved	18	5.17	0.52
On the Journey	16	5.36	0.62
Journey Not Started	29	5.21	0.46

Table 8. ANOVA Result for the Mean Factor Scores

	Sum of Squares	Df	Mean square	F	Sig
Between Groups	.343	2	.171	.634	.534
Within Groups	16.215	60	.270		
Total	16.558	62			

Assumptions Associated with ANOVA

The three assumptions associated with ANOVA were assessed to determine their validity. The first assumption is that the data is independent, which means there is no relationship between the observations in the groups (Norusis, 2008). The data was independently collected from individuals that had no influence on one another's responses, so independence of observations is not violated. Equality of variances across the groups (Magnet designation) was assessed using Levene's test. The *p*-value was 0.821, which is greater than alpha of 0.05 (Table 9). The null hypothesis that the variances are equal cannot be rejected. The assumption of homogeneity of variance has not been violated for the ANOVA.

Table 9. Levene's Tests for Equality of Variances or Homogeneity

	Levene's Statistic	*df1*	*df2*	Sig.
Emotional Intelligence	0.198	2	60	0.821

The final assumption of normality was assessed using a histogram of the emotional intelligence scores. The histogram of the emotional intelligence scores show slightly left skewed distribution for all sectors (Figure 4). Fortunately, ANOVA is robust to moderate deviations

from normality because researchers have shown that the false positive rate is not affected very much by this violation of the assumptions conducting simulation studies, using a variety of non-normal distributions (Glass, Peckham, & Sanders, 1972; Lix, Keselman, & Keselman, 1996; Rubinstein, Hayes, & Olds, 1992). Since ANOVA is robust to non-extreme deviations from normality, the data does not violate the assumption of normality to the point of invalidating the test results for the ANOVA completed to test hypothesis 5. The assumptions associated with ANOVA were not violated.

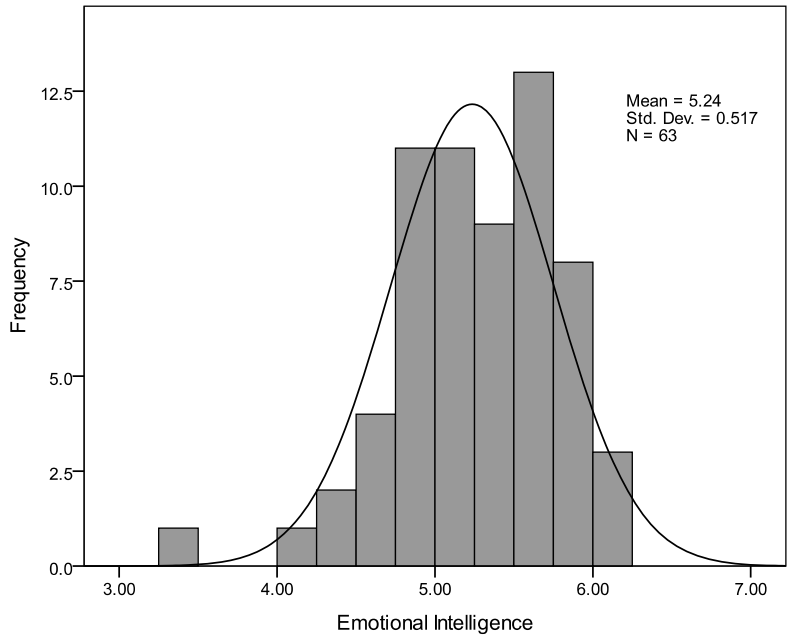

Figure 4. Histogram of Emotional Intelligence scores

Power Analysis of Sample Size

Statistical power is the ability to reject a null hypothesis when it is false (Swanson & Holton). Effect sizes are analogous to r^2 and can be computed in these types of analysis (Swanson & Holton, 2005). For both the multiple regression analysis and the one-way

ANOVA, power analyses were conducted using G*Power software (Faul, Erdfelder, Lany & Buhner, 2007). These power analyses are considered post hoc power analyses as they are conducted after the data has been collected.

Statistical power depends on four parameters; (1) the chosen significance level (α) of the test, (2) the size of the sample (3) the number of predictors or groups (4) an effect size parameter (Cohen, 1988). The α for this study was established at 0.05 and the sample size was 63. The multiple regression analysis had four predictors. The G*Power software was used to calculate the effect size given the R^2 value. For the multiple regression analysis, the R^2 value was 0.273 and the effect size was computed to be 0.3755. The power of the multiple regression analysis was calculated to be 0.9765, which indicates that the power of the test was exceptionally high and there was an extremely small probability (0.0235) for making a type II error. A type II error occurs when the researcher concluded that there is no significant effect based on the sample data, when it really was present in the population (Swanson & Holton, 2005). This means that a type II error occurs when the effect is present in the population, but the sample size does not exhibit the effect. Type II errors are more common for sample samples. If the sample size is too small, a study will fail to provide accurate and relative research answers to the questions it is investigation (Cohen, 1988).

For the one way ANOVA conducted to test hypothesis 5, there were three groups. G*Power software was used to calculate the effect size of 0.1478 based on the means, standard deviations, and size of the three groups (Table 6). The power was calculates to be 0.1607, which indicates that the probability of making a type II error, failing to reject the null when it is actually false, is 0.8393. Therefore, there is an 83.93% chance that the null hypothesis was not rejected

when it should have been. It can be concluded that the power of this test was not sufficient, and it is possible that a Type II error was committed.

Summary

This chapter highlighted the analysis of the data collected from the surveys obtained from the nursing leaders belonging to the state nursing organization. Usable survey results were obtained from 22.6% of the respondents, utilizing an online survey for data collection. Multiple linear regression and one-way analysis of variance were completed using SPSS statistical software. The four dimensions of the emotional intelligence revealed that each of the four dimensions is a predictor of the nursing practice environment (Hypotheses 1, 2, 3, and 4). The data did not support the hypothesized relationship between the overall emotional intelligence score of the nursing leader and the organization's Magnet designation (Hypothesis 5). There was very little difference between the emotional intelligence scores and the three designation categories. The power analysis conducted for Hypothesis 5 reveals that the decreased sample size may have impacted the conclusion to not reject the null hypothesis. Chapter 5 will discuss the significance of the findings, limitations, implications and recommendations for future research.

CHAPTER 5. DISCUSSION, IMPLICATIONS, RECOMMENDATIONS

The purpose of this study was to determine if relationships existed between the four domains of emotional intelligence and the nursing practice environment. A relationship between the overall EI of the nursing leader to the status of the organization's Magnet designation was also assessed. This chapter will present a summary and discussion of the significant findings of this study including limitations. Implications and recommendations from this study will be shared with suggestions for future research.

Summary of Discussion and Findings

The environment in which the nurse works has been identified as a key indicator for metrics such as turnover, job satisfaction, professionalism and clinical outcomes ((Ebright, 2010; (Winslow & Herman, 2006). Schein (1986) recognized the depth of organizational culture and climate and suggested that it is imperative to recognize one's own occupational culture in order to seriously understand the impacts of culture. Multiple factors have been identified to contribute to the perception of nurses. According to Sherman and Pross (2010), the establishment of a healthy work environment requires strong nursing leaders especially at the unit level. Leaders have the ability to create deeply satisfying organizational cultures at the unit level (Sherman & Pross, 2010).

The PES-NWI is a tool that assists with the identification of attributes of the nursing organizational culture (Lake, 2002). The PES-NWI tool has become the most widely reported measure for gauging nursing practice environment states (Warshawsky & Havens, 2011). According to Hanrahan (2007), the PES-NWI is used in outcomes research measuring constructs

of the practice environment. Using this tool, regarding the nursing practice environment, nurse leaders across the identified state were asked to share their perceptions of the nursing environments under their leadership responsibilities. Sixty-three nurse leaders completed the surveys answering all the questions. The composite score for the PES-NWI was calculated to be 3.21 with a standard deviation of 0.13. This is indicative of a positive practice environment as it is greater than 2.5 as identified by Lake (2002).

Emotional intelligence has been defined as the determinants of the way we think, feel and act (Salami, 2007). Salovey and Mayer (1990) suggested that emotional intelligence can be used to represent the ability of people to deal with their emotions. Four dimensions were identified as interrelated skills that in total reflect emotional intelligence (Salovey & Mayer, 1990). The four dimensions include appraisal and expression of emotion in self (SEA), appraisal and recognition of emotions in others (OEA), regulation of emotion in self (ROE) and use of emotion (UOE) (Salovey & Mayer, 1990). It is these four dimensions that were assessed in relationship to the overall practice environment scores from the nursing areas.

The Wong and Law Emotion Intelligence (WLEIS) was the survey tool used for this study. The sixteen item survey has four categories with four items in each of the categories. Each category is calculated to provide a score for that specific domain. The mean scores for each of the domains were tabulated. Each of the domain's mean was higher than the neutral score of 4 (Wong & Law, 2002). The use of emotion (UOE) was the highest reported category from the nursing leaders responding to the survey at 5.32. The category of regulation of emotion (ROE) in self was the lowest mean score at 5.11. The composite score for overall emotional intelligence was not calculated. This was a decision regarding the scope of the study.

Additionally, the variables were simultaneously entered so it is not possible to determine the extent of the individual categories in regards to the nursing practice environment.

Leadership abilities and skills have been noted to enhance the practice environment. Ayers (2005) recognizes that a function of leadership is to influence the organizational climate. According to Momeni (2009) great organizational climates decrease cost of turnover, resistance to change, and improvements in quality. It has been suggested that the emotional behaviors of the leader accounts for more than 70% of the organizational climate and is directly related to the leaders' morale and behaviors (Momeni, 2009). Emotional intelligence impacts emotional behaviors.

Leadership contributions to the practice environment must be continually assessed and developed as identified by practice environment perceptions. The four dimensions of emotional intelligence refers to skills to be open to positive emotional states and negative emotional states, and are necessary to understand and improve thinking (Landa & Lopez-Zafra, 2010). It has been recognized that the emotional intelligence skills provides the nurse leader with the ability to work in harmony with the leaders' own thoughts and feelings, while understanding how to manage and respond to others (Landa & Lopez-Zafra, 2010). Goleman (1998) asserts that individuals that master the four domains of emotional intelligence translate these competences into professional behaviors.

Focusing on the four domains of emotional intelligence in leaders reveals conclusions that nurse leaders who maintain greater self-awareness provide positive role modeling for their subordinates (Harrison & Fopma-Loy, 2010). Emotionally aware leaders can readily analyze the emotional side of issues, seek resolution and create positive outcomes to issues that may arise (Harrison & Fopma-Loy, 2010). Within nursing, it appears that higher emotional intelligence

nursing leaders promote increased effectiveness and may be an underlying expression of transformational leadership behavior resulting in a major improvement in the functioning of the organization as well as encouraging employees to increase their level of self awareness and regulations (Akerjordet & Severinsson, 2008).

The first four hypotheses seek to analyze if a relationship exists between the specific EI domain and the overall nursing practice environment. The linear relationship between the WLEIS subscores and the nursing practice environment was significant. This positive finding supports the premise that as the WLEIS subscale scores increase, the nursing practice environment scores also increase. A conclusion is that the higher the EI of the nurse leaders with the subscale WLEIS scores, the better the nursing practice environment.

Magnet designation recognizes nursing cultures of excellence. A tenet of Magnet designation addresses both the recruitment and the retention of qualified professional nurses (Kettering-Murray, 2002). Nursing leaders are one of the key impetuses in developing a positive professional practice environment (Lewis & Matthews, 1998). A historical review of Magnet designated organizations identifies progressive nursing leaders, who attract and retain competent nurses, led Magnet hospitals (Upenieks, 2003).

Upenieks (2003) conducted a study that demonstrated a difference in nursing leadership effectiveness between Magnet and non-Magnet organizations. Magnet designated organizations scored higher than non Magnet organizations in areas of nursing quality, professionalism, and autonomy (Upenieks, 2003). According to Grant, Colello, Riehle, and Dende (2010), nursing leaders at Magnet organizations instill passion, set direction, are accessible and engaged and committed to effective communication. Engagement, according to Chrusciel (2006), is reflective of the relationship and is based on the emotional connection. The leader who wishes

to enhance the nursing environment must create and sustain a organizational structure that enhances collaboration (Stichler, 2010).

The final hypothesis sought to determine if a relationship existed between the emotional intelligence of the nursing leaders responding to the survey and the status of the organization's Magnet journey. Based on the results from this survey, it was not possible to determine if a relationship was present. The emotional intelligence overall scores were not statistically significant between the three categories of Magnet designation achieved, on the Magnet journey, or Magnet journey not started.

Limitations

Identification of limitations provides for opportunities for future research. This study used a convenience sample of nursing leaders from one state. Nursing expectations and practices differ depending on aspects of local and state regulations, type of nursing care provided, and possibly educational requirements for scope of practice. As a result of these differences, the generalizability of the study may be problematic. It is possible that the nursing leaders may perceive their nursing practice environments quite differently than nursing leaders in the identified state. The use of convenience sampling has frequently been used with the PES-NWI survey tool. It has been suggested that cross sectional survey designs are necessary to determine the sensitivity of the indicators over time (Warshawsky & Havens, 2011). "Increased use of longitudinal designs using the PES-NWI tool to monitor change over time will help establish causal links between characteristics of the nursing practice environment and outcomes" (Warshawsky & Havens, 2011, p. 29). Demographic variables such as age were not collected and analyzed in this study.

The PES-NWI tool, while highly recognized, has been criticized for the variety of forms taken, including use of composite scores, subscale scores, "favorability" scores, and individual item scores (Warshawsky & Havens, 2011). The variation in use limits the comparison of scores across studies and locations (Warshawsky & Havens, 2011). This study compared the composite score for the PES-NWI in relation to selected independent variables. The inclusion of the comparative composite score might provide additional information for implications and future research ideas.

The emotional intelligence survey tool used is gaining momentum regarding utilization. This tool was selected based on the ease of use and length of survey. The majority of this tool's utilization has been in countries other than the United States. Asian workers including nurses comprise the majority of the tool's use. Additional testing has been done in Australia and India. In order to build a deeper database, expanded use of the tool with nurses in the United States will provide for greater comparisons and an expanded body of literature.

The mechanics of the online survey construction resulted in a reduced response rate. 37 surveys were not able to be included in the study as a result of missing data. While the decreased response rate was demonstrated to be insignificant compared to all surveys initiated, the possibility exists that alternative correlations may occurred. The sample size does not appear to have impacted the first four hypotheses, but may contribute to a potential Type II error with hypothesis 5. Attention to survey construction parameters would have eliminated this issue completely.

The decision to limit the scope of the study resulted in the inability to compare the four dimensions of emotional intelligence to the categories that comprise the PES-NWI. The PES-NWI survey tool has five categories including a category specific to the nurse manager. With

the predictive nature of the four dimensions of EI, a deeper and more specific comparison with the nurse manager category might provide greater insight into areas of development for the nursing leader. Assessing the overall EI scores to aspects of the PES-NWI would provide additional information and areas of focus.

Implications

Leadership attributes have been identified as contributing to the overall organizational climate and culture. Emotional intelligence has been recognized as a contributing attribute to leadership success. The benefits of emotional intelligence impact both the leader and the followers of that leader. As a result, developing emotional intelligence in the leader provides and sustains positive relationships in the work setting. An analogy presented by Paninchukunnath (2008) discussing the necessity for leaders to understand EI is "like incompetent doctors, incompetent leaders can make organizational life worse: making people sicker and feel less vita" (p. 69).

Previous studies comparing leaders from successful companies have revealed that one-third of the difference in performers is cognitive, while two-thirds of the difference is due to emotional competence (Webb, 2009). Emotional competence refers to the skills that lead to excellent performance which are linked to and based on emotional intelligence (Goleman, 1998). Learning and enhancing these competencies have been demonstrated to increase the emotional intelligence in leaders (Webb, 2009). The mastery and development of EI competencies leading to greater EI abilities evolves with maturity, experience and the willingness to change (Colfax, Rivera, & Perez, 2010). Emotional intelligence can be developed with intentional learning and leadership development programs. The benefits of EI growth in nursing leaders provide an

opportunity for improvements in the nursing practice environment. Intentional education and leadership development in all four areas of EI could be considered as a part of the nursing leaders' professional growth path. Determining areas of development for the nursing leaders could result in specific individualized learning opportunities.

The dynamic health care environment, along with the predicted nursing shortage, depicts the importance of nursing staff retention. Multiple issues contribute to the nursing practice environment. The PES-NWI has five categories that encompass the aspects of the nursing practice environment. One specific category is the nurse manager ability, leadership, and support of nurses (Lake, 2002). A review of the literature identified two major causes of staffing and nursing management as significant contributors to turnover and retention of nursing staff (Cline, Reilly, & Moore, 2003). A study conducted by the American Organization of Nurse Executives regarding finding and retaining qualified nursing staff identified the need for outstanding nursing leaders with the ability to build relationships and communication with nursing staff (Cline, Reilly, & Moore, 2003). A positive work environment recognizes the importance of satisfied nursing staff. Cline, Reilly, and Moore (2003) recommend that nursing managers seek professional development in an effort to improve the current work environments.

The four domains of EI have been demonstrated in this study to have a relationship with the nursing practice environment. It has been suggested that the nursing practice environment contributes to the decision of the nurse to stay in the organization. While a direct connection to retention has not been established, focusing on the EI of the nurse leader may have an indirect effect on nursing retention. Saunderson (2011) posits that the better the leader understands oneself, the better the leader will be able to express the positive emotions that are craved by employees and are essential for positive workplaces. Employees develop emotional commitment

when they believe the organization and their supervisor care about them (Roberts, Zeidner, & Mathews, 2001).

Future Research

Contributing to nursing knowledge with emotional intelligence and the nursing practice environment will provide insight into aspects that will enhance the nursing profession. The depth of knowledge regarding the multiple aspects of emotional intelligence in nursing leaders remains limited. Seeking relationships between composite EI scores of nursing leaders and multiple aspects of the nursing practice environment might provide direction for changes in the organization. The nursing practice environment has five categories, with one specifically focusing on the nurse leader. Further study regarding relationships between the composite EI level and the nursing manager specific category in the practice environment might provide information that could be used to improve or enhance the work arena.

Comparisons with the EI subscales specific to the nurse manager category of the PES-NWI might provide areas of focus for leadership development. While this study did not address individual EI domains, further investigation into the relationship to the nursing practice environment might emphasize areas of contribution to improvements that were not identified in this study.

The design of a study that would further identify relationships between EI and the practice environment could be a longitudinal approach. EI has been noted to increase with age and maturity (Webb, 2009). Focusing on one specific target population and sample may reveal aspects of EI development that this type of research design will not allow. This type of study

could be expanded to multiple settings and types of leaders both within nursing and other areas in health care organizations.

The collection of certain demographics in order to seek relationships between EI and demographic variables might reveal areas of concentration contributing to the overall EI levels. The decision to exclude the collection of demographics from this study prevented any observations to be made in regards to age, gender, or career type. While this study focused on nursing leaders, other nursing or health care related careers could be compared to demographic variables and EI. This type of study might provide information that would be useful for individualizing learning development plans.

The new generation Magnet model will provide multiple avenues for further research. The transformation leadership model has combined the previous attributes of the leadership portion of the program. Leadership development along with EI levels should be studied in relation to Magnet designation efforts and obtainment. The expense of this program is significant so any insights regarding efforts towards success would be appreciated by all those involved with striving towards a culture of excellence. The elements and efforts of the Magnet designation program focus on the nursing care delivered and qualities of the environment where professional nurses excel.

Summary

This purpose of this study was to determine if relationships existed between the four domains of emotional intelligence and the nursing practice environment. The first four hypotheses were found to show a positive relationship between the independent variables of the EI domains and the dependent practice environment. The fifth hypothesis sought to determine if

a relationship between the overall EI level of the nursing leader and the status on the Magnet journey existed. There was not sufficient evidence to state that a relationship existed. The importance of the nursing practice environment in health care today is critical as the nursing shortage looms in the future. Multiple efforts are being implemented to retain the professional nurse. The PES-NWI is a tool that assists with the nurses assessment of the work environment.

The nursing leader plays a pivotal role creating and supporting this work environment. Relationships with leaders have been identified as one of the multiple attributes important to the professional nurse. Building, maintaining and enhancing the relationships are outcomes for the emotional intelligent leader. It has been suggested that increasing the level of one's emotional intelligence is possible. Using this premise, it is suggested that learning development plans be instituted to focus the learning for the nursing leader on specific areas of importance regarding levels of EI. This study was able to demonstrate the relationship that when the level of EI increased, the nursing practice environment became more positive. These efforts could create an organizational culture that resulted in great retention and limited turnover of the nursing staff.

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