THE RELATIONSHIP BETWEEN EMOTIONAL INTELLIGENCE AND JOB SATISFACTION AMONG NURSES AT A COMMUNITY HOSPITAL SETTING

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Abstract

A quantitative research study of the relationship between emotional intelligence and nurse job satisfaction was conducted at a community hospital. Research has shown that nurse job satisfaction has been linked to retention and quality outcomes for patients and thus has been identified as an important factor by health-care organizations. The study was framed by three questions that asked whether significant relationships exist between emotional intelligence and job satisfaction of nurses in a community hospital setting, between experiential emotional intelligence and years of nursing experience, and between strategic emotional intelligence and nurse job satisfaction. A convenience sample of 57 nurses completed the Jobs-in-General survey and the Mayer, Salovey, Caruso Emotional Intelligence Test (MSCEIT) v2.0. Data were analyzed and a Pearson's *r* test calculated. The results showed no significant correlation between emotional intelligence and nurse job satisfaction, no significant correlation between years of service and experiential emotional intelligence, and no significant correlation between strategic emotional intelligence and job satisfaction. Recommendations for future study include exploration of the relationship between job satisfaction and bedside practice for nurses. Future discussion of nursing as art and nursing as science may benefit from study of emotional intelligence in which emotional intelligence is viewed as trait as well as ability.

Dedication

Dedicated to the other two doctors in the family, my husband and my son. Thank you for believing in me and cheering me on. We have set the example for future generations that learning is an essential component in the journey of life.

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I want to acknowledge Dr. Lynn Hackstaff, who has diligently mentored me through this learning experience. Her advice and constant encouragement helped me stay focused to the end. To Dr. Bruce Lazar and Dr. Kerry Grohman, committee members for coaching and contributing valuable input that made this final product a better one.

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CHAPTER 1. INTRODUCTION

Introduction to the Problem

A challenge faced by hospital leaders is that of continuously evaluating and monitoring the quality of care and cost of operations, especially the cost of labor. Nurses are the largest group of employees in a hospital, and therefore a high percentage of labor dollars are spent with this group (Feldstein, 2007; Griffith & White, 2007). This is important because turnover of nursing staff can cause staff shortages and has been linked not only to the increasing cost of health care but also to a negative impact on quality of care (Clarke, 2003; Heinz, 2004). This has captured the attention of regulatory agencies and consumer groups such as the Centers for Medicare and Medicaid (CMS) and the National Quality Forum (NQF), which incorporated measures to monitor quality outcomes. Regulatory agencies are instituting pay-for-performance reimbursement models based on these outcomes.

Nurse job satisfaction has been linked to retention and quality outcomes for patients (Boyle, Miller, Gajewski, Hart & Dunton, 2006; Ulrich, Lavandero, Hart, Woods, Leggett & Taylor, 2006). Hospital leaders therefore have focused on implementing strategies that influence nurse job satisfaction because studies show that it is correlated to quality outcomes. In over 1,500 scholarly articles, Tzeng and Yin (2009) found that changes to structures and processes have had the most influence on the way hospitals have tried addressing nurse retention and job satisfaction. Evidence-based work environments, according to Buerhaus (2009) and to Flynn, Mathis, and Jackson (2006),

include staffing and resource adequacy, better life and work balance, ability to participate in organizational decision making, and structures that provide for professional growth and collaboration. Hader, Saver, and Steltzer (2006), Kotzer and Arellana (2008), and Upenieks (2005) explain that organizations that have these positive work environments demonstrate better patient outcomes and lower vacancy and turnover rates, as well as higher nurse satisfaction scores.

Social networks within an organization also have been strained by the financial constraints of health-care systems (Freshman & Rubino, 2004). This has been compounded by health-care reform and by a turbulent economic environment that breeds uncertainty as it relates to the future of health-care organizations. Nurses that work in this kind of environment risk experiencing a loss in job satisfaction because of the stress they find themselves in, which may cause burnout. Sadovich (2005) found that there is a direct correlation between burnout and nurse dissatisfaction. This leads to nurse disengagement that negatively affects quality outcomes.

According to Alspach (2009), the literature on healthy work environments focuses largely on organizational factors, structures, and processes and not on the personal influence that the individual nurse brings to the environment. There is a need to examine every possible level of influence, including the highly personal ones that may contribute to nurse job satisfaction. There is a personal framework of needs that nurses employ to accept or not their work environments and to choose whether they are satisfied with their jobs. Akerjordet and Severinsson (2007) discuss that emotional intelligence (EI) may be instrumental in enabling nurses to better cope with stress in the workplace. They propose

that central to professional competence and growth is the learning and maturation processes that come with emotional intelligence. Nurses are expected to have the ability to empathize and communicate in a way that supports inter- and intrapersonal relationships for the benefit of the patients in their care.

Mayer and Salovey (1997) proposed that emotional intelligence is the ability to function in the four dimensions of perceiving, using, understanding, and managing one's emotions. When individuals are able to balance all of these, they are said to have emotional intelligence because they are able to acquire and maintain the relationships that help create a positive environment. This concept of the individual influence of nurses on their own job satisfaction has not been widely studied. It is important because as leaders focus on creating this environment and provide needed resources, it remains the nurses' choice as to how they will interact in this environment to provide quality care and evaluate and decide their level of satisfaction. Knowing if emotional intelligence influences nurse job satisfaction can help in creating strategies that incorporate this knowledge with other strategies aimed at retention of employees in general and how they relate to each other. Positive employee relations will impact patient care.

Background of the Problem

Retaining nurses that provide quality care remains a concern for health-care leaders facing an aging workforce who will inevitably exit as the current national financial crisis conditions change and a decreasing supply of nurses continues to be a reality (Buerhaus, 2005, 2008; Buerhaus, Auerbach, & Staiger, 2007; Buerhaus, Staiger,

& Auerbach, 2003; Hader et al., 2006). Leaders are concerned because control of health-care cost and quality is difficult to accomplish with an unstable workforce of nurses. It is expected that with the health-care reform, more people will be seeking services in an environment that will demand higher quality and will reimburse based on outcomes as a strategy to control the cost of health care (Darling, 2010; Wilensky, 2009).

The need to retain aging nurses who are readying to leave the workforce is enhanced by changes in the health-care environment. This retention could bolster organizational stability while the major reform changes are taking place and new nurses are recruited to fill the gap left by the retirees. Blakeley and Ribeiro (2008) found that early retirement had nothing to do with work environment but that retiring nurses just wanted to enjoy other things in life. Another study, however, reported that older nurses indicated that changing the work environment to ease the physical aspect of providing nursing care would help them remain in the workforce longer. These factors and less stressful environments contribute to nurse job satisfaction (Blakely & Ribiero, 2008; Ernst, Franco, Messmer, & Gonzalez, 2004; Hader et al., 2006; Letvak & Buck, 2008).

Research shows that experienced nurses have a significant positive impact on the care of patients, and that the potential loss of experienced nurses, particularly of older nurses, from an organization can pose a threat to patient care (Dunton, Gajewski, Klaus, & Pierson, 2007; Fero, Witsberger, Wesmiller, Zullo, & Hoffman, 2009; Heinz 2004). In a study of 889 new graduate nurses, Beecroft, Dorey, and Wenten (2007) found that if the nurses were happy with their pay and reported high job satisfaction, there was less intent of turnover. Therefore, balancing retention of new nurses as they gain experience with

delaying older nurses' exit from the workforce is important. Job satisfaction is important to both of these groups, and factors such as pay, lower stress, time to do the nursing care, task requirements, and staff recognition have been found to predict nurse job satisfaction (Ernst et al., 2004).

While many studies have been conducted on what constitutes a healthy work environment and the effects of these on job satisfaction, several have just hinted at the effects of the intrinsic factors a nurse brings to the working relationships that may influence job satisfaction. Longo (2009) found positive correlations between nurses' desire to stay in the profession and in their current positions and their relationships with peers and managers. Laschinger, Finegan, and Wilk (2009) and Spence Laschinger, Leiter, Day, and Gilin (2009) had similar findings where studies showed that, other than the work environment, collegial work settings in which mutual respect among nurses and restraint from uncivil behavior had an impact on decreasing the potential for burnout and increasing engagement and job satisfaction ($r^2 = .46$). Predictors of job satisfaction were identified as organizational commitment, job stress, autonomy, and peer and supervisor relationships. These involved the individual approach of the nurse toward relationships and commitment.

According to Sadovich (2005), a positive environment in health care influences the level of work excitement that prevents burnout in nurses. McQueen (2004) as well as Zammuner and Galli (2005) attribute burnout to a nurse's inability to handle emotional labor, that is, the ability to sustain an outward appearance when dealing with difficult situations with patients and others. Emotional labor calls up those needed interpersonal

and intrapersonal skills to deal with difficult situations or with the caring of patients' emotional needs. A nurse's ability to control emotions and manage them on a continuum draws on the inner self. Just how this happens is not well known, but it has potential implications for the nurse. The increased capacity of a nurse to manage emotional intelligence may lead to satisfaction on the job and with the career in general. Exploring whether there is a relationship between EI and nurse job satisfaction is the focus of this study.

According to Manojlovich and Laschinger (2007), an empowering environment provides for better relationships between nurses and physicians as well as for better overall communication. They also found that nurses that feel empowered use organizational as well as unit level structures and processes more effectively, and have greater satisfaction. These findings are consistent with those of Jasper (2007a) and of Tabak and Orit (2007) where it was found that nurses' stress levels depend on their approach to the conflict with the doctors. If nurses integrate and dominate in the conflict, they have less stress.

Jasper (2007a) and Tabak and Orit (2007) also found that job satisfaction positively correlated with integrating $r = 0.43$ ($p < .001$) and negatively correlated with obliging and avoidance $r = -0.18$ ($p < .05$) conflict resolution tactics. Kuokkanen, Leino-Kilpi, and Katajisto (2003) argue that nurses need decision making power. The hints in these studies about the nurse having to plan an approach to manage conflict and communication in the workplace and how it may impact job satisfaction begs the question of what influences the nurse to come to conclusions that direct their actions.

In a qualitative study, Vinje and Mittelmark (2007) found that nurses reflected on what changes would impact their engagement in work. Nurses avoided burnout by using well-developed skills of reflection and introspection to understand what professional and personal changes needed to be made to maintain an engaged attitude and high levels of work satisfaction. But, how a nurse makes those decisions and the importance of using emotional ability to do so has not been extensively studied. EI testing measures the ability to perceive emotions in others and subsequently choose how to act. This is why it is important to study this subject as it relates to nurses.

According to Anbu (2008), it was Daniel Goleman who popularized the terms emotional and social intelligence in 1995. Emotional intelligence was introduced into the field of psychology, however, by Peter Salovey and John Mayer in 1990. They defined emotional intelligence (EI) as the ability to function in the four dimensions of perceiving, using, understanding, and managing one's emotions. When a person is able to balance all of these, they are said to have high emotional intelligence and are therefore able to acquire and maintain relationships that create a positive environment.

The latest empirical studies on EI as it relates to nursing have been conducted by Codier, Molina Kooker, and Shoultz (2008). In their study, they found that in general nurses had low total EI scores and important sub-scores of perceiving, using, and managing emotions. This finding is very interesting in that a nurse is said to be a high emotional labor user. In a recent nursing research study, Codier, Kamikawa, Kooker, and Shoultz (2009) found that EI correlated positively with greater job retention, higher performance, and longer nursing careers. Of note, this study did not address job

satisfaction and used a self-reported method of evaluating nurse retention. This study fills a gap and focuses specifically on nurse job satisfaction as a factor in nurse retention.

Statement of the Problem

While the relationships between EI and nurse recruitment and EI and leadership skills have been studied, the relationship between nurse satisfaction and emotional intelligence has not been widely researched. This is important because hospitals are competing for patients and for providers to use their facilities. A nurse workforce with high satisfaction scores benefits an organization in that having an engaged group who works collaboratively with physicians, other clinicians, patients, and their families enhances the hospital's ability to provide a better environment for all their stakeholders (Freshman & Rubino, 2004; Longo, 2009; Melnyk, 2006; Spence Laschinger & Finegan, 2005; Spence Laschinger, Leiter, Day, & Gilin, 2009). Job satisfaction may be dependent on how nurses handle environmental stressors and on how they relate to other health-care workers and patients. A nurse that has interpersonal and intrapersonal skills may be able to handle multiple stressors by implementing strategies that will help her or him adapt and still maintain a positive outlook about work.

High nurse satisfaction has been correlated with patient satisfaction. Cadman and Brewer (2001) point out and also propose that emotional intelligence may be a predictor of successful initial recruitment into the profession that later contributes to retention of the nurse in the profession. Knowing if there is a relationship between EI and nurse satisfaction can help in implementing appropriate strategies to impact nurse job

satisfaction. This study addresses the gap in knowledge to explain if and how emotional competence influences job satisfaction. Abraham (2004) and Freshman and Rubino (2004) call for further study in these areas and specifically in health care. Kooker, Shoultz, and Codier (2007) suggest further studies be conducted of the relationship between EI and job satisfaction in nursing. Codier et al. (2009) and Bulmer Smith, Profetto-McGrath, and Cummings (2009) call for further study of EI impacts on nursing teams, emotional labor, and EI's effects on nurse education. This study focuses on emotional intelligence and job satisfaction.

Problem Statement

There is a lack of understanding of the effects that intrinsic factors such as emotional intelligence may have on nurse job satisfaction. If it is shown to positively impact job satisfaction, it could merit recruitment strategies or training efforts to increase or improve EI among potential or existing nursing staff so as to enhance retention rates.

Purpose of the Study

The purpose of this quantitative, correlational study was to examine the relationship between emotional intelligence and nurse job satisfaction of a group of nurses that work in a community hospital setting in the state of Maryland. A desired outcome of the study was to help health-care leaders evaluate and implement appropriate strategies to increase nurse retention. A study population of 400 nurses was identified, and a convenience sample of 196 was calculated with an online calculator widely used

for determining correct sample size (http://www.surveysystem.com/sscalc.htm). Leedy and Ormrod (2005) suggest as a rule of thumb that approximately half the total study population serve as the study sample. In their example, a population of 500 would need half of the sample to participate for creditable statistical analysis.

Leaders are concerned because control of health-care cost and quality is difficult to accomplish with an unstable workforce of nurses. Moreover, job satisfaction has been linked to retention of nurses (Darling, 2010; Wilensky, 2009). According to Vinje and Mittelmark (2007), nurses can avoid burnout by using well-developed skills of reflection and introspection to understand what professional and personal changes need to be made to maintain an engaged attitude and remain satisfied at work. EI testing measures the ability to perceive emotions in oneself and in others, and to choose how to act. This is why it is important to study this emotional intelligence as it relates to nurses. Educating nurses in this subject may enhance relationships at work and thereby enhance those environmental factors that contribute to job satisfaction. This, in turn, may produce positive outcomes for patient care as nurses themselves work under less stress and develop an awareness of how stressors can affect their work and satisfaction.

Research Question and Hypothesis

There is a lack of understanding of the effects intrinsic factors such as emotional intelligence have on nurse job satisfaction. The purpose of this correlative study was to examine the relationship between emotional intelligence and nurse job satisfaction of a group of nurses that work in a community hospital setting. A desired outcome of the

study were results that would help health-care leaders evaluate and implement appropriate strategies that would increase nurse job satisfaction, which itself has been linked to nurses having a higher commitment to the organization, a greater intent to staying in the job, and a lower turnover rate (Gajewski, Boyle, Miller, Oberhelman, & Dunton, 2010). This is important to the well-being of a health-care organization and to patient outcomes. Therefore, it is important to examine the relationship between EI and job satisfaction. This quantitative study examined this relationship guided by the following three research questions.

Question 1. Is there a significant relationship between emotional intelligence and job satisfaction of nurses that work in a community hospital setting?
The null hypothesis (H_0) is that no significant relationship exists between emotional intelligence and nurse job satisfaction.

Question 2. Is there a significant relationship between experiential EI and years of nursing experience?
The null hypothesis (H_0) is that no significant relationship exists between experiential emotional intelligence and years in nursing.

Question 3. Is there a significant relationship between strategic emotional intelligence and nurse job satisfaction?
The null hypothesis (H_0) is that no significant relationship exits between strategic emotional intelligence and nurse job satisfaction.

To address these questions, a convenience sample of 196 nurses working in a community hospital was used in this study (Creswell, 2008; Leedy & Ormrod, 2005). Data collection occurred via online survey; nurses took an EI test and a job satisfaction survey at a secured website created for this study. Results were calculated by collating individual scores per instrument and employing the Statistical Package for the Social Sciences (SPSS) to execute a Pearson's *r* test. The results were evaluated and a decision

taken to reject or accept the null hypothesis for each of the research questions. Support for the choice of three questions is developed in the following sections.

Rationale, Relevance, and Significance of the Study

This study is relevant for the specialization in health-care administration because nurses are the largest group of employees in a health-care organization and although they consume a significant proportion of the labor expense, they are crucial in providing quality care to patients. Studies show that the cost of hiring and recruiting new nurses is higher than the retaining them, and thus it is important for health-care organizations to use resources to retain them. The nursing shortage will increase due to the high number of nurses that will soon retire and the demand will correspondingly continue to increase as does the population seeking health-care services (Buerhaus, 2008).

In the past decade, several studies have focused on developing a healthy work environment. This includes studies showing that retention is increased in environments where positive relationships are present among nurses, their managers, and with physicians (Jasper, 2007b; Longo, 2009**;** Tabak & Orit, 2007). Recent health-care reform will affect the growing nursing shortage as it is expected that over 40 million additional people will obtain access to health care that did not have it previously.

There have been few studies about what nurses themselves bring to the stakeholder relationships in health-care organizations. The proposed study is valuable to hospital executives, nursing leaders, and nursing educators because it is important for nurses to have positive interactions with all the stakeholders that provide care in a health-

care organization, and most importantly with the patients. Studies of how emotional labor affects nurses have shown that there is a correlation between emotional labor and nurse burnout. The effects of emotional labor on the ways that the nurse provides care have also been studied (McQueen, 2004). Other studies have shown that nurses who have had long nursing careers have higher EI. They were more satisfied when stress was low, exhibited a higher correlation rate between job retention and on-the-job recognition, and were able to handle conflict better (Blakely & Ribiero, 2008; Codier, Kamikawa, Kooker, & Shoultz, 2009; Codier, Molina Kooker, & Shoultz, 2008; Ernst et al., 2004; Letvak & Buck, 2008; Morrison, 2008; Tabak & Orit, 2007). The strategies that nurses use to decrease emotional labor that impact nurse retention, either in the profession or in a particular job, have not been widely studied, but EI may be one of the factors that influences emotional labor.

Emotional Intelligence

The current study emerged from earlier studies on EI in industries other than health care, in particular those made popular by Daniel Goleman in discussing leadership qualities (Anbu, 2008). The concept subsequently began appearing in health-care literature. Abraham (2004) proposed that emotional competence may be an antecedent to performance. She suggested that employers would benefit from determining those emotional competencies that would give an employee the resilience to tolerate job stress and under-reward, especially in the times of downsizing and increased stress. Freshman and Rubino (2004) proposed that studies that contribute to the understanding of the

effectiveness of EI skills in health care be conducted; they suggested studying the effects that EI has on validated measures such as culture and customer service. Specific to the present study, the aforementioned authors suggest research also be done on employee satisfaction to determine application of EI to the health-care environment. With this research complete, health-care leaders may benefit from new learning and develop well-founded competencies.

Although this phenomenon has only been studied in the last 15 years in the health-care field, EI in the nursing field was discussed first in the literature as a philosophical concept and recognized both as an essential ability nurses employ to make decision for patients and also as a component in workplace relationships. The research then turned to several empirical studies in the areas of nursing leadership, nursing education, and practice (Akerjordet & Severinsson, 2007; Bulmer Smith, Profetto-McGrath, & Cummings, 2009). Those few empirical studies conducted centered on nursing practice. Gaps have been identified in our understanding of how the emotional intelligence of the individual nurse affects teams and groups of nurses, in the use of EI in nurse education, in patients' perception of the care received, and in different approaches to developing EI in nursing.

McQueen (2004) began exploring the relationship between EI and the emotional labor nurses use in caring for patients and found that little has been studied in this area. Notwithstanding, Cadman and Brewer (2001) advocate selection processes by which the EI of nursing school candidates is tested, suggesting that it would be preferable to have candidates that already demonstrate these EI abilities. Though the abilities can be

learned, the learning process takes time. This becomes relevant in an environment characterized by a nursing shortage because being able to fast track students already with these abilities may be helpful.

Hence, as presented above, it was determined that new knowledge generated from this study would specifically address the relationship between EI and nurse job satisfaction as recommended by other researchers. Knowing if there is a relationship between EI and nurse job satisfaction could add to the studies already conducted in defining those factors that constitute a healthy work environment that supports increased nurse satisfaction and nurse retention. Knowing if EI affects how a nurse makes decisions about job satisfaction could help reframe how leaders develop the current nurse workforce, and how they would build a future workforce in an environment that enhances nurse satisfaction as it relates to relationships in the workplace. Standard practice already is characterized by high demands to keep nurses clinically competent, as well as proficient in other organizational culture domains. Knowing if dedicating time to test and develop competencies and nurse staff training for EI is valuable could help organizations decide on approaches to address this any additional findings as well as suggest continued research in this area.

The specific community studied had very little involvement in seeking employee opinion in the area of job satisfaction. This study allowed the community hospital access to information regarding their employees' job satisfaction, and could be used to put strategies in place that would address survey results and research findings. Knowing if a

relationship between EI and nurse job satisfaction exists would allow the community hospital to develop a better plan using the feedback received from study participants.

Nature of the Study

The researcher proposed a quantitative, correlational study to explore the relationship between nurse job satisfaction and EI. Job satisfaction may be dependent on how the nurse knows how to perceive, use, understand, and manage emotions. Knowing how to manage emotions in different situations allows nurses to process information and make choices that contribute to their work environment. Mayer, Salovey, and Caruso (2004) proposed that emotions govern and often signal responses to situations. This is the philosophical basis for measuring EI: to predict nurses' responses to situations. The selected study design helped in understanding the relationship of the EI of a particular nurse and his or her response to job satisfaction.

The study of EI in nursing is still in its infancy. However, studies in health care and nursing have called for further studies to be done in this area. Anbu (2008), Codier et al. (2009), Codier et al. (2008), Kooker et al. (2007), and Reeves (2005) recommend further research where positive correlations have been identified between performance, longer careers, and job retention, and they call for nurses to understand how to use these concepts to effect positive outcomes in the workplace and with patient care. This study explored another aspect with the potential to help hospital leaders understand which factors impact job satisfaction besides those structures that directly influence work environments.

The study was conducted in a community hospital. Nurses were asked to participate by voluntarily answering the Job in General (JIG) job satisfaction survey and at the same time take the Mayer, Salovey, Caruso Emotional Intelligence Test (MSCEIT) v2.0. Participants were identified only by number, and the number was used to match both tools to the same person. The results of both were analyzed to determine if a correlation existed. Recommendations were made based on the findings.

Because there is a lack of understanding of what effect intrinsic factors such as emotional intelligence has on nurse job satisfaction, the proposed study examined if a relationship exists between these two variables. Stamps (1997) has found in her ongoing work that nurse satisfaction is used more as an outcome measure to evaluate management innovations towards achieving a higher satisfaction for nursing teams. A quantitative method of applying two tools, one that measures nurse job satisfaction and another that measures EI of nurses that work in a community hospital, was used. A statistical analysis was conducted to determine if there is a relationship between EI and nurse job satisfaction, a relationship that could later be used as an initial, exploratory stage of research. This methodology was a best fit because it provided information as to the personal framework of needs that nurses employ to make choices about job satisfaction. This could impact how hospital organizations consider strategies to maintain or enhance nurse job satisfaction.

Definitions of Terms

Emotional intelligence. Emotional intelligence is defined as the ability to function in the four dimensions of perceiving, using, understanding and managing one's emotions. When a person is able to balance all of these aspects, they are said to have emotional intelligence (Mayer & Salovey, 1997).

Job satisfaction. Job satisfaction is defined as the extent to which an individual likes their job (Stamps, 1997, p. 13).

Emotional intelligence as ability. Emotional intelligence as an ability is defined as the capacity to reason in regard to emotions, and to use emotions to assist cognition that can be measured (Mayer, Salovey, & Caruso, 2004, p. 197).

Emotional intelligence as a trait. Emotional intelligence as a trait is defined as behavioral dispositions and self-perceived abilities measured through self-report. (Petrides & Furnham, 2001, p. 246).

Job in General scale. This is a scale that measures overall satisfaction with the job.

Mayer, Salovey, Caruso Emotional Intelligence Test (MSCEIT). The MSCEIT is a newly developed, 141-item scale designed to measure the following four branches (specific skills) of EI: perceiving emotions, using emotions to facilitate thought, understanding emotions, and managing emotions. Each skill is measured with two tasks. (Mayer, Salovey, Caruso, & Sitarenios, 2003, p. 99).

Burnout. Maslach defines burnout as the "psychological syndrome of exhaustion, cynicism and inefficiency which is experienced in response to chronic job stressors" (as cited in Spence-Laschinger et al, 2009, p. 304).

Downsizing. Downsizing is defined as decreasing the size of the physical or human resources of an organization.

Healthy work environment. A healthy work environment is defined as one that supports and fosters excellence in patient care, ensures patient safety, enhances staff recruitment and retention, and maintains an organization's financial viability ("AACN," 2005).

Work engagement. This study follows the definition given by Schaufeli et al. Work engagement is a positive fulfilling work related state of mind that is characterized by vigor, dedication, and absorption (as cited in Vinje & Mittlemark, 2007, p. 108).

Limitations of the Study

1. The convenience sample included only nurses in a particular setting, which limited generalization of findings.
2. Participants were self-selected volunteers who were required to have basic computer skills and who were willing to take the time to participate.
3. It is limited in that a correlational study does not indicate causation and it only captures a moment in time.

Assumptions of the Study

1. The researcher assumed that the participants would answer truthfully the questions on the instruments used.

2. The researcher assumed that the participants were representative of nurses in the population.
3. The researcher assumed that the MSCEIT v2.0 was a reliable and valid instrument in measuring EI.
4. The researcher assumed that the JIG tool was valid and reliable
5. The researcher assumed that nurses wanted to participate voluntarily and would be able to comfortably use a computer to enter the answers to the surveys.
6. The researcher assumed that the sample was sufficient to conduct study.

Conclusion

In this chapter, the lack of understanding of the effects intrinsic factors such as emotional intelligence has on nurse job satisfaction was introduced and a quantitative research study proposed to answer three research questions that explore the existence of a relationship between emotional intelligence and nurse job satisfaction of nurses that work in a community hospital. It is important for a scholar practitioner in a health-care organization to use resources and implement initiatives that may help to retain nurses, as they constitute a key and large percentage of the hospital workforce. In the next chapter, a relevant review of the literature summarizes, interprets, and evaluates current literature on the topic of EI and nurse job satisfaction.

CHAPTER 2. LITERATURE REVIEW

Introduction

To answer the research question, is there a relationship between the level of emotional intelligence and the job satisfaction score of nurses in a community hospital, literature on emotional intelligence and nurse satisfaction was reviewed. There has been increased interest in the subject of emotional intelligence in the last decade in and out of the field of psychology. This literature review is focused in five areas, the theoretical framework, defining emotional intelligence, a review of research studies conducted of EI in the work place in general, a review of studies of EI and the nursing profession, and a review of studies of nurse satisfaction.

Theoretical Framework

Evolution of Emotional Intelligence Theory

In modern psychology, the EI concept represents a stage in the evolution of the thinking on the relationship between reason and emotions (Petrides, Furnham, & Frederickson, 2004; Grewal & Salovey 2005; Mayer, Salovey, & Caruso, 2008). In the 1930s, Robert Thorndike and David Wechsler proposed that there might be a relationship between EI and reasoning, advancing the idea that other, non-intellective aspects contribute to the intelligence of a person. In the 1970s, research into the interaction of emotion and thought led to the development of the EI concept through experiments that

looked at relationships between the two, such as effect of depression on memory. In unpublished papers over the next decade, John Mayer identified the term emotional intelligence. According to Petrides et al., (2004), John Mayer and Peter Salovey proposed the first formal definition and model for the construct of emotional intelligence in 1990.

Simultaneously, Howard Gardner introduced the theory of multiple intelligences (MI). Of eight intelligences, he identified two, intrapersonal and interpersonal intelligences, that he described similarly to the current description of emotional intelligence, that is, to perceive emotions in self and others. Gardner (1995) proposed that intelligence is a biological and psychological potential that depends on factors consisting of culture, experiences lived, and motivation. Shearer (2004) explains that MI theory focuses on distinguishing how intelligent the person is from how the person is intelligent. Gardner (1995) presents EI as a more focused concept than social intelligence. EI can be one of the intelligences integrated into a component of social intelligence. Intelligence, according to Gardner, is a capacity with processes directed toward a specific content of the world. The content specific to EI would be the social world.

As the concept developed, behavioral dispositions and self perceptions that are described as positive attributes (e.g., self-awareness, empathy, innovation, communication, adaptability) were also called EI or were said to be present in people with EI. David Goleman (1995), however, exposed and popularized the terms emotional and social intelligence and influenced the launching of this field of study. Nevertheless,

Goleman has been criticized for having taken this too far without empirical evidence. He first used the Mayer Salovey (1997) model, in which EI consists of abilities. He mixed it with traits that subsequently made it almost impossible to really define EI from his writings, let alone to validly and reliably measure EI with his model and tool (Anbu, 2008; Matthews, Roberts, & Zeidner, 2004; Mayer et al., 2008; Petrides et al., 2004; Pfeiffer, 2001; Salovey & Grewal, 2005).

As empirical studies began to appear in psychology literature and in other industries, the debate was divided into two groups: those researchers that focused on EI as a distinct group of mental abilities and others that studied a group of positive traits that individuals demonstrate, which they called EI. Akerjordet and Severinsson (2007), in a comprehensive review of EI literature for the years 1990 to 2005, concluded that a question remains as to whether EI is a personality theory or a form of intelligence, or even a combination of both. EI remains in the development stage although the number of empirical studies seemed to have dropped considerably, from a peak of 68 studies in 2004 to 8 studies in 2005. Regardless of the debate over theoretical framework, Akerjordet and Severinsson (2007) found agreement amongst researchers. That is, EI highlights the need for self-awareness, and it affects professional behavior and emotional management by growing through reflection.

For the purpose of this study, we considered that the managing of relationships with other professionals and patients to be inherent to the work of the professional nurse. As nurses interact in a given work environment and set of relationships, the way by which they make choices about these relationships and the environment is not well

known. EI may play a role in what causes nurses to be satisfied in their jobs. Petrides et al. (2004) claim that within the last 20 years the debate has progressed toward two, distinct conceptual understandings of EI: ability EI or trait EI. Emerging empirical evidence suggests very low correlations between the two, and this helped in the choice of construct to be used for this research study.

Defining Emotional Intelligence

Pfeiffer (2001) points out that, although there is a growing interest in the concept of emotional intelligence, there has been an ongoing heated debate about two main points. Firstly, there is no clear, concise definition of emotional intelligence. The definition argument is based on whether EI is a trait or an ability. Secondly, there is a distinct absence of a tool that both validly and reliably measures EI. In the last three decades, a concept has emerged that combines a number of results into a set of measurable skills that can show the capacity of an individual to use abstract thought, to apply it to the environment, and to learn from it.

Goleman (1998), who popularized the term, sees EI as the capacity to recognize and manage our own feelings in interacting with others. This kind of intelligence involves competencies such as understanding how the social world works, what he calls synchrony, which entails engaging non-verbal interaction alignment in meaningful ways. On the emotional intelligence side, it involves self-regulation, awareness, and self-motivation. Emotional intelligence according to Goleman (1998) can improve with education and practice thereby allowing people to interact at a higher level with others.

He viewed EI as a set of competencies. Because of his work, which approached EI as a mix of personality traits and ability, many empirical studies have been conducted in the field of psychology, and different tools have been developed to measure EI. Two constructs of EI have evolved however, the trait or mixed EI and the ability EI.

EI as a Trait

The advocates of trait EI define it from a more general framework and draw on personality traits and its relationship to emotions. Petrides and Furnham (2001) and Mayer, Salovey, and Caruso (2008) explain that trait EI encompasses behavioral disposition and self-perceived abilities, which are measured primarily through instruments that capture self-reportable information. This distinguishes trait from ability and makes traits useful as descriptors of EI having a strong relationship with the basic dimensions of personality. Petrides and Furnham (2001) propose that identifying this concept as intelligence makes the label of trait EI an oxymoron. To avoid this they prefer the label emotional self-efficacy but recognize the difficulty in doing so given all the literature with the current label. Trait EI can be measured by instruments such as the Bar-On Emotional Quotient Inventory, the Schutte Emotional Intelligence Scale (SEIS), or the Trait Emotional Intelligence Questionnaire (TEIQue). Based on the pursuit of this area of EI, the conversation of how to distinguish trait EI from general personality traits entered the conversation.

Van der Zee and Wabeke (2004) found it necessary to study indicators that distinguish trait EI from personality traits that may be predictive against life criteria.

They found that EI trait items cover in a more narrowly focused way those broader traits that are considered behaviors, thereby exhibiting emotional intelligence within the personality traits theory of the big five. In a study of 1,186 top managers, they were able to assess variance in competency ratings beyond the big five. Although there was a clear relationship between trait EI and the big five measurements, they were unable to conclude the independent value of trait EI. Their finding, however, does offer a way to predict some important criteria.

Ability EI

Most of the work regarding ability EI has been developed by Mayer, Salovey, and Caruso (Brackett & Mayer, 2003; Grewal & Salovey, 2005; Mayer et al., 2004, 2008; Mayer et al., 2003; Salovey & Grewal, 2005). The ability EI construct uses maximum performance or proficiency testing methods to evaluate the interface between emotion and cognitive processes. Emotional intelligence is defined by Mayer and Salovey (1997) and Mayer et al. (2008) as perceiving, using, understanding, and managing emotions. In their model, Mayer et al. (2008) propose four domains or cognitive emotional terms and describe them as four branches hierarchically arranged into a tree. Mayer, Salovey, and Caruso believe that even negative feelings can be harnessed to produce a positive outcome. It can be summarized as reasoning with emotions and about emotions. For the purpose of this study, we ask if a nurse's emotional intelligence is reflected in her or his job satisfaction.

Mayer et al. (2004) developed a tool to measure EI as ability. The tool is developed in such a way that it presents problems to be solved by the test taker. The Mayer, Salovey, and Caruso Emotional Intelligence Test (MSCEIT) was developed to address the biased viewpoint of the self-reporting participant. This study uses the definition developed by Mayer and Salovey (1997) and later expanded with Caruso, and that was validated with a widely used, empirical instrument. Mayer et al. (2004) propose that emotions govern and often signal responses to situations. They use this as the philosophical basis for measuring EI to predict responses. Applying this theory within this study informs whether EI impacts nurse/participants' responses regarding job satisfaction.

Crucial Theoretical Debates

Two parallel debates continue regarding multiple intelligences (MI). One debate centers on MI as an evolving theory currently being tested, and the other arose from further development of EI as a standalone intelligence sub-divided into two constructs. The crucial theoretical debates were generated once Goleman popularized EI in 1995, which then prompted the argument that there is no other one variance that has claimed as large a percentage in predicting success. The popular literature suggests that if, indeed, only 20 percent of success can be attributed to general intelligence, how can the rest or 80 percent of success be attributed only to EI? Vitello-Cicciu (2002) argues that Goleman extended the EI definition so much that it is no longer of scientific value. Pfeiffer (2001)

proposes that the subject is popular but elusive, that it lacks scientifically sound, objective measures, and that it has not been tested to qualify as intelligence.

Matthews, Roberts, and Zeidner (2004) agree and add what they call myths about emotional intelligence. Some of these are that EI does not have a construct validation, and that measuring IQ is not the same as measuring EI. Consequently, EI does not predict adaptive coping. Zeidner, Roberts, and Mathews (2004) argue that EI may be a concept that is too young to die. The conversation is just starting, and they have pointed to the need for empirical evidence as the subject has stirred interest in the emotional domain. They further suggest studying it outside the construct of EI or personality testing but under constructs such as information processing, emotional self-confidence, and emotional knowledge and skills. However, the authors find that the work done by Mayer et al. (2004) on ability EI is showing promise.

Intelligence or Not

The parallel debate centers on the idea of MI. Waterhouse (2006) argues that there is inadequate evidence for multiple intelligences. She posits that the discussion based on Gardner's seminal work of 1983 did not prove multiple intelligences correctly because Gardner only summarized others' studies. He did not test all the theories. Gardner and Moran (2006) respond that Waterhouse misunderstand Gardner's research. Gardner synthesized a large body of empirical information from different disciplines. As a result, he re-conceptualized intelligence by looking at all this information from an inclusive lens rather than through the constraints of a single discipline thereby building a

new foundation for future studies and inquiry. Waterhouse limits her inquiry through psychometrics, whereas Gardner (1995, 1996), reflecting on the past decade since his seminal work, has evolved to seeing intelligence through the intelligence fair in which all intelligences interact with one another. Gardner proposes that some intelligences can be measured psychometrically and that others cannot yet be demonstrated. Based on eight criteria, he explains that intelligences have emerged from the response to environments, that culture evolves to fit nature, that intelligences respond to a specific content of the world, and that there are different memories for language, music, and spatial intelligences. We cannot assess intelligences, but we can assess high or low proficiency in different tasks. Therefore, to the extent that a person can do a task (e.g., perceive, identify, understand, manage), emotions as per a test is good enough for Gardner. He need not know the number of an EI score, for example. Rather, he is more interested in a person's ability to perform a task at a high or low level.

Gardner and Hatch (1989) posit that many have tried to measure multiple intelligences, but that measurement occurs best when acknowledging that there are other intelligences that influence each other and that intelligence cannot be measured outside of the cultural context. In an attempt to lessen the debate, Chen (2004) offers that MI theory is one that is both explanatory and generative because, like other social science theories, it is rarely proved or disproved regardless of the methods used. Yet, they orient the researcher to try other frameworks that may contribute to new knowledge and lead to a different way to understand the world. MI theory is explanatory in that it brings order to a wide range of information.

In one attempt to bring order to these constructs, Petrides and Furnham (2001) emphasize that in order to use EI in an operational context, the way the construct is measured has theoretical implications. For EI, the labels have evolved into ability EI or trait EI. They promote co-existence of both trait and ability. However, they note that more research exists regarding trait EI as a construct of self-perceived abilities and dispositions because it is more difficult to develop tools, measures, and tests to study ability EI. This is where Mayer, Salovey, and Caruso (2002) have focused and developed the MSCEIT psychometric tool, which has been tested for validity and reliability based on consensus and expert scores.

Progress on Debates

Empirical studies have continued informing the subject of EI from both constructs (i.e., ability and trait EI). Studies on comparing the measures show that the ability method does not correlate with the personality method consequently indicating that they are separate constructs (Barchard & Hakstian, 2004; Brannick, Wahi, Acre, Johnson, Nazian, & Goldin, 2009; Conte, 2005; Day & Carroll, 2008). Both constructs have proved successful in studies predicting academic success and in others predicting individual, group, and citizenship behaviors (Barchard, 2003; Day & Carroll, 2004; Song, Huang, Peng, Law, Wong, & Chen, 2010). In another study, significant differences were found between students choosing a career path in the social sciences and those choosing the natural sciences (Kafetsios, Maridaki-Kassotaki, Zammuner, Zampetakis, & Vouzas,

2009). Science students surprisingly were found to score higher on the trait EI measures, and the social science group scored higher on the ability EI construct.

Bridging the Gaps

This research is an attempt to provide information and help fill gap in our understanding as to whether intrinsic factors such as EI influence nurse job satisfaction. Viewing EI as an ability that can be tested, and not as a trait measured through self-report, contributed to data collected via the MSCEIT tool. Zeidner et al. (2004), critics of EI constructs and how they are measured, point to validity and reliability not being established. Although, they acknowledge that the increase in expert reliability provided by the MSCEIT is promising.

Review of Critical Literature

Many studies and articles have been written about emotional intelligence. The lack of understanding of how emotional intelligence really works prompted empirical research, but studies of its intersection with nursing and job satisfaction are few. The vast literature on EI is driven by psychological studies, a sample of which will be reviewed. The critical literature review, then, will focus on studies done by the nursing discipline about EI and job satisfaction as it relates to EI.

Psychology and EI

Pellitteri (2002) found that one way in which EI works is by using ego defenses to psychologically adapt to the situation as it relates to interpersonal relationships. The study also showed that emotional knowledge was an important component in being able to adapt. In this study, which used the Multifactorial Emotional Intelligence Scale (MEIS) and the Defense Style Questionnaire (DSQ) to investigate on how EI works, it was found was that EI and general intelligence are correlated. The study found that when individuals use predominantly adaptive defenses, they tend to have higher levels of emotional intelligence. This is a function of the relationship between defenses and the emotional knowledge component. There is a degree of cognitive reasoning and analysis required to be emotionally intelligent. To adapt to one's social and intrapersonal situations effectively, this study implies that individuals need to use logical reasoning and conceptual understanding. This suggests that EI skills conscious efforts like coping mechanisms.

Lam and Kirby (2002) found a positive correlation with EI and general intelligence in the areas of perceiving and regulating emotions r^2 change = .074, F (2,292)= 3.24, ($p < .001$). They did not find a correlation with the understanding of emotions, which calls for naming emotions. The individuals with high EI also had high IQ, specifically in the perceiving and regulating. Lam and Kirby propose that EI combined with general intelligence enhances individual performance and productivity as individuals in the study showed a cognitive–based performance that was over and above what could be attributed to general intelligence alone. On the other hand, Ivcevic,

Brackett, and Mayer (2007) found that both emotional creativity and emotional intelligence as separate abilities correlated to cognitive intelligence.

Schoo (2008) suggests that to understand how EI works, one need to be look at it through the lens of choice theory. Both of these concepts, he posits, are about internal control psychology, and he uses leaders as an example. He sees positive leadership as a consequence associated with outcomes such as happy relationships, teamwork, and learning, outcomes that are brought about by leaders who are emotionally intelligent. The emotional intelligence is a result of the leaders' awareness that they have responsible choices available to them to obtain what they want. For the purpose of this study, the psychology perspective on EI as an internal control mechanism is important in that nurses may use this internal control in making decisions about how they relate to the work environment and how it affects job satisfaction.

EI in Work Environments

Abraham (2004) attributes the weak relationship found in studies of EI and performance to the studies' focus on general EI rather than on a set of emotional competencies. Based on the Goleman model, competencies of self-control, resilience, social skill, reliability, integrity, and others interact with the organizational climate, job demands, and autonomy to then influence performance.

Zammuner and Galli (2005) studied EI among service workers and found a correlation between emotional labor (EL) and burnout. EL is closely related to EI and to job performance. The study showed that the extent to which a person can manage EL

may be dependent on EI, specifically on regulating emotions. In studying workers that require employee-customer interactions, they found that the emotional labor involved in regulating emotions in relationships can come at a cost. This was evidenced by emotional exhaustion and depersonalization, both of which are dimensions of burnout.

Researchers such as Chiva and Alegre (2008) recommend that leaders consider EI and organizational learning capability (OLC) when looking at job satisfaction. They found little correlation between job satisfaction and EI, unless mediated by OLC. It is essential for an organization to manage its learning as it discovers how to learn from its employees and from their relationship to their working environment. This is particularly relevant in health care because of the environment of caring for the sick and where relationships with patients and among workers can impact healing.

Sandars (2004) agrees in that knowledge management is an active process whereby the user of knowledge actively integrates explicit knowledge with his or her own experiences. Understanding this knowledge management process can help improve quality health care because it would necessitate the integration of the human aspects which then would require changes in the organization at national and at practice levels. Sandars points out the potential of knowledge management to improve the quality of health care and the need for health care to use what is learned in everyday work. For this research, the findings in these studies demonstrate that if a correlation is found between EI and JOBSAT, it would be beneficial for an organization to support nurses in gaining knowledge about EI and about how it impacts their work life.

Emotional Intelligence Health Care

After having reviewed Goleman's work, Anbu (2008) wondered what the study of EI could bring to the bedside of health-care organizations. The rapid adoption of these concepts prompted researchers to apply this knowledge in the health-care workplace and associated language begins using terms such as skills-needed in leadership. Freshman and Rubino (2004) see this terminology shift as promoting collaborative relationships to acquire and maintain social networks outside and within the organization. They urge training programs for health-care workers on developing EI skills and then call for further studies that would contribute to understanding the effectiveness of EI skills in health care. Freshman and Rubino suggest studying the EI's effects on validated measures such as culture and customer service. The authors' suggestion that research be done on employee satisfaction to determine application of EI to the health-care environment directly relates to this study's topic and research design. There are few studies in health care related to EI. Results from this study may point to how a health care organization could use the study results to take new learning and apply it to develop needed competencies.

Ogińska-Bulik (2005) studied EI of human services workers. The participant group was comprised of persons that worked directly with people. Participants included physicians, nurses, teachers, probation officers, and managers. Compared to uniformed professions like firefighters and security guards, the service professions were lower in the EI measure. This study showed that participants with high EI as measured by the ECi tool, which is a mixed ability EI and trait EI tool, had a better the capacity to handle stress and also had less health disorders r -.023 ($p < .001$). Ogińska-Bulik (2005) calls EI

a factor responsible for success in life and psychological well-being. EI helps identify occupational stress and the need to take action so that continued stress will not negatively affect workers' health.

Nursing and Emotional Intelligence

Research in nursing related to EI is still new and only in the last 15 years has nursing begun to explore EI and its impact on nursing practice. Three literature reviews were found: McQueen (2004), Akerjordet and Severinsson (2007), and Bulmer Smith et al., (2009). Although all included EI and nursing. McQueen (2004) excluded articles related to nursing leadership and EI, and Akerjordet and Severinsson (2007) focused on EI research whose scope went beyond nursing.

McQueen (2004) conducted a meta-analysis of literature on emotional labor in the nursing profession and its relationship to emotional intelligence. The topic began appearing in nursing journals in 2001. Although studies exist about the importance of understanding how nurses use emotional labor in caring, its relationship to EI has not been studied. One of the questions generated from the search was whether EI protects from emotional labor and therefore protect from burnout. A greater research scope is needed in this area.

The second literature analysis found was done by Akerjordet and Severinsson (2007). Their meta-analysis of the years 1995- 2005 centered on the empirical and epistemological literature on EI. Some of the reviewed articles included literature relevant to nursing. Although criticized, EI research is promising. These authors found

that prior to 1995-2000, research primarily focused on philosophy. Empirical research, and related data, peaked in 2004 before beginning to decrease. As it relates to nursing, the authors found that empirical research suggested that EI is recognized as an essential ability that nurses use to make decision about patients and about other relationships in the workplace. This suggests that more research be done regarding how EI can be used in nurse education. Equally, more research related to how patients perceive care received is needed, and correspondingly different approaches to develop the EI concept in nursing.

In an integrative analysis of EI literature from 1995-2007, Bulmer Smith et al. (2009), revealed three meta themes in the field of nursing: nursing education, nursing leadership, and nursing research having reviewed the aforementioned meta-analyses. At the time of their analysis, only nine articles discussing nursing practice had been published. In each case, nursing practice was included as part of a larger theme of nursing research. One gap herein is how the emotional intelligence of individual nurses impacts teams and groups of nurses.

Some of the articles within the aforementioned three meta-analyses and subsequent research specifically center on relationships, which is closely associated with EI and how EI may be related to the maintenance of or building of those. Later research emphasizes the importance of nurses' comprehension of the concepts and their use in improving positive outcomes in the workplace and with patients (Jackson, Clements, Averill, & Zimbro, 2009; Morrison, 2008; Reeves, 2005). The research also describes how nursing leaders use knowledge of EI in supporting qualities of personal relationship building, listening, and mutual respect. One study found positive correlation between EI

and the ability to collaborate in handling conflict. Morrison (2008) reported a positive correlation between EI factors of self-awareness, self-management, social awareness, relationship management, and collaborative conflict handling (self-awareness $r = .247$, self-management $r = .322$, social awareness $r = .307$, relationship management $r = .368$). However, the study found that nurses use accommodating and avoidance styles more often in resolving conflicts. Of note to this study, the author found that nurses with high EI used collaboration in handling conflicts, and that they had more years of nursing practice.

Akerjordet and Severinsson (2007) suggest that emotional intelligence may be instrumental in enabling nurses to better cope with stress in the workplace. They propose that central to professional competence and growth is the learning and maturation processes that come with EI. Nurses are expected to have the ability to empathize and communicate in a way that supports interpersonal and intrapersonal relationships. Such relationships benefit the patients in their care and support the nursing and other clinical teams with whom they work while caring for patients in a hospital setting.

Quoidbach and Hansenne (2009) found a positive correlation between health-care quality and emotional regulation but not a strong correlation between job satisfaction and rate of turnover. They caution that being emotionally intelligent may be counter-productive in that they found that to protect some, nurses overlooked what others were doing that was wrong. Cadman and Brewer (2001) suggest that EI should be a prerequisite for recruitment into nurse educator programs. They posit that having these skills upon entrance into a program is necessary because of the significant role that

therapeutic interpersonal process plays in the practice of nursing, and although learned, it is not achieved quickly. This plays a role in the EL that has been linked to nurse burnout and nurse job dissatisfaction.

When burnout occurs, McQueen (2004) attributes it to the nurse's inability to handle emotional labor, which is the ability to sustain an outward appearance when dealing with difficult situations with patients and others. Emotional labor calls up the required interpersonal and intrapersonal skills to deal effectively with a difficult situation or with a patient's emotional needs. A nurse's ability to control emotions and manage them on a continuum calls on her or his inner self. Just how this happens is not well known, but it has potential implications for the individual nurse. Emotional labor depends on EI to engage the intrapersonal and interpersonal skills of EI to succeed in a situation in which emotions have to be managed, controlled, or altered to match others' emotions or behavior so that the experience is deemed authentic.

More recent work on EI and job retention in nursing has taken the form of qualitative study to analyze nursing stories and identify those factors that may lead to positive outcomes in patient care and contribute to nurse retention (Codier et al., 2009; Codier et al., 2008; Kooker, Shoultz, & Codier, 2007). Extrapolating from this work to the current study, one would ask whether higher scores on nurse satisfaction scales correlate with higher emotional intelligence scores.

In their later publications, the authors answered some of the questions generated in their first study. They have found that there is a positive correlation between high EI scores and clinical performance level as evidenced by participation on a career ladder

($p \leq .05$). Of note, the authors found that, in general, nurses had lower total EI scores and important sub-scores in the areas of perceiving, using, and managing emotions. This is an interesting finding as it is said that a nurse is a high emotional labor user. Most recently Codier et al. (2009) reported that EI correlated positively with higher performance ($p < .01$), longer career ($p < .05$), and retention ($p < .01$).

EI and Nursing Intuition

Current research on EI does not reveal or point to studies on nursing intuition, which has been identified as a trait of an expert nurse and a form of knowledge (Smith, 2009). Intuition is studied in the context of clinical decision making and the nurse-client relationship, and of how nurses make decisions based on factors other than those before them. Studies on intuition point to the way nurses make clinical decisions and confirm that there is an unknown factor, an intuition that nurses use in the nurse experience. Nursing research points to intuition as part of nursing science. It is knowledge received as a whole and not based on analysis. It is a product of interaction, of knowledge, expertise, and experience. Intuition is an ongoing detection or awareness that maintains the anticipation of how the perceiver will act based on all gathered information. It may not be a conscious act, and is also referred to in nursing literature as direct perception (Effken, 2001, 2007; Traynor, Boland, & Buus, 2010).

Effken (2007) describes intuition as a specific mode of thinking that evolved from the merger of knowledge, skill, and experience (i.e., a synergy of knowledge, experience, and expertise results in intuition). Effken sees personality, environment, and acceptance

of intuition as a valid concept in an established nurse-patient relationship as attributes of intuition. Intuition can be examined through the lens of psychology and perception. It can be seen as the product of the nurse's individual attributes and ability to use information from the work environment. There is lack of empirical evidence in establishing the legitimacy of intuition. Similarly as in the case of EI, McCutcheon and Pincombe (2001) point out that there is a lack of consensus on the definition of intuition and of theory about its use in practice.

Billay, Myrick, Luhanga, and Yonge (2007) consider intuition as more than a rational analytical method. Rather, they see intuition as an integral part of nursing science. Inherent in intuition is tacit knowledge, which they regard as composed of two functioning systems. The first is perception, which includes feelings or emotions. The second is comprised of intuition and imagination. This review identifies awareness and perception as two concepts that relate intuition and the study of EI. Extant studies of intuition and EI, however, are found in the area of clinical decisions and discuss the use of perception and awareness of other things to make decisions.

Nurse Job Satisfaction

Although much has been written about nurse job satisfaction, the present review is geared toward literature that relates to work environments and working conditions, as well as how an environment might be conducive to positive nurse relationships with patients and other health care workers. Shullanberger (2000) points out that nurses' satisfaction with working conditions and self-scheduling elicit increased negotiation

skills and cooperation among nurses. Burnout is prevented by a positive environment, according to Sadovich (2005), itself influenced by the level of work excitement. An environment where relationships are positively managed influences work excitement. Ernst, Messmer, Franco, and Gonzalez (2004) found that work conditions such as time to provide satisfactory patient care, pay, the relationship between nurses, and team building strategies were all predictors of nurse job satisfaction. Kuokkanen et al. (2003) add that an environment where a nurse feels empowered is one that often results in nurse job satisfaction.

Many studies have focused on work environment. Prominent among them in the nursing literature is the work done by Laschinger et al., (2009), Leiter and Spence Laschinger (2006), Spence Laschinger and Finegan (2005), and Spence Laschinger et al. (2009), and Manojlovich and Laschinger (2007), They state that although many studies have been conducted about the influence of the practice environment on nursing practice and patient outcomes, the environment has not been conceptualized in such a way that allows nursing leaders to create a template to for implementing a model practice environment. They also question if the relationship between nurse engagement and the environment results from underlying individual dispositions, rather than from a model practice environment.

This research contributes to the gap in knowledge of how dispositions or intrinsic factors affect job satisfaction, namely in this case, EI. Leiter and Spence Laschinger's Nursing Worklife Model (2006) conceptualized five domains of nursing practice (a) nurses participating in hospital affairs, (b) having a nursing model on which to base care,

(c) nursing leadership support, (d) sufficient resources, and (e) collegial relationships between nurses and physicians. This study suggests that EI can and should be further explored within the nursing practice environment, a domain in which relationships can be impacted. The study asks what a nurse brings to the relationship domain of the environment and whether this is related to nurse job satisfaction.

Spence Laschinger et al., (2009) and Laschinger et al., (2009) continued work on these domains and expanded on the importance of collegial work settings. They found that respect among nurses and the act of refraining from uncivil behavior decreased the potential for burnout and engagement. Incivility has an impact on burnout and nurse satisfaction. Their findings also suggested some predictors of job satisfaction: autonomy, peer and supervisor relationships, organizational commitment, and job stress. Each involve an individual approach to relationships and commitment. This research helps to fill in this gap: whether and how EI might influence these predictors.

Alspach's results (2009) resonate with the above research in that literature on healthy work environments focuses largely on organizational factors such as structures and processes and not on the personal influence the individual nurse brings to the environment. It is not only the effect of structures and processes on the work environment that must be examined, but also that of the highly personal. Nurses employ a personal framework of needs to accept or not these environments, and their choices affect job satisfaction. Becze (2009) suggests a work balance that includes self-management can increase nurse satisfaction. An environment in which relationships are positively managed influences work excitement.

Vinje and Mittelmark (2007) may have touched on this personal framework when they asked nurses to reflect on what changes would affect their engagement in work. They found that nurses avoid burnout by using well-developed skills in reflection and introspection to understand what professional and personal changes need to be made to maintain an engaged attitude and remain satisfied at work. This points to the four areas of EI, namely perceiving emotions, using emotions to facilitate thought, understanding emotions, and managing emotions to make decisions. As nurses reflect about their experiences and make decisions about how satisfied they are at work, they call on their EI. Emotional resources can be elicited more readily when positive feelings can be called upon to manage emotionally intense situations. It is not known whether this elicitation of emotional resources is an aspect of EI, and if measured, what it would show.

Recent Dissertations on EI and Nurse Satisfaction

A search for dissertations on emotional intelligence and job satisfaction for the last decade yielded two, only one of which was nursing related. An unpublished dissertation was written by Farmer (2004), who studied the relationship among emotional intelligence, burnout, and job satisfaction among nurses in early nursing practice. The following section compares Farmer's completed dissertation and design with this work.

Both this study and Farmer's research take a quantitative approach to examine the relationship between emotional intelligence and job satisfaction. The difference is that the Farmer's dissertation has an additional variable to measure nurse burnout and job satisfaction as it relates to emotional intelligence. Another difference is found in the

study population. Farmer's work focused on nurses that were new to the profession, defined as having 1 year to 18 months work experience.

Farmer's hypothesis was that a positive correlation would be found between EI and job satisfaction, and that burnout would be lower among new nurses. The current study is limited to new nurses. This study's sample includes currently practicing nurses, some of whom but all are new to the profession. This study adds to Farmer's findings (2004) by analyzing characteristics of a broader sample of the nursing population. Farmer (2004) focused on attrition among nurses who had practiced for only a short period of time, a problem because of the last decade's increasing nursing shortage.

Evaluation of Viable Research Design

This study uses a quantitative method of correlation in which the dependent variable is nurse satisfaction and the independent variable is the emotional intelligence of the nurse. The assumption is that when nurses have a high satisfaction score, their emotional intelligence scores are also high. A correlation method was chosen because little is known, and no study has been done about the relationship between emotional intelligence and nurse job satisfaction. In a correlational study, the main interest is to determine whether two or more variables covary and if they do, establish the direction, magnitude, and forms of their relationships. In observing the data, the researcher has made no attempt to manipulate the data but rather to observe them as is. If a relationship exists between these two variables, then it is possible to use the value of one to predict

the probable value of the other, although linking variables to cause remains open to question (Bordens & Abbot, 2008, p. 102).

According to Bordens and Abbot (2008), three advantages of using a correlational research design include (a) gathering research at the early stages of research, (b) an inability to manipulate variables, and (c) relating naturally occurring variables. Gathering data in the early stages of research helps identify potential causal relationships that in turn can beget a rich number of hypotheses that later may be tested experimentally (Bordens & Abbot, 2008, p. 102). The proposed research may identify potential causal relationships between EI and nurse satisfaction. Such a causal relationship would predict whether an education in EI would help nurses develop their skills to form workplace relationships that influence job satisfaction. This study is at the forefront of linking nursing practice and EI.

The second advantage of a correlational research design is the inability to manipulate variables. In experimental design, variables are manipulated to determine their effects on the other variables. Here, doing this may be unethical or impossible. For the current research, this is important because the study of EI in nursing, and its relationships to other variables, is yet in early stages. Manipulating the variables in this research would potentially compromise the "as is" of the variables because it could introduce the Hawthorne effect and/or coercion due to the researcher's position at the study site.

The third advantage of using a correlational study is that even if the reasons for a possibly discovered relationship is not clear, the resultant information could be useful in

future predictions. Further correlational designs could be used to test the predictions. As mentioned above, the early stages of nursing research in this area makes the correlative study a best fit for this study's methodology.

A disadvantage of using correlation, according to Bordens and Abbott (2008), is that data interpretation can be problematic. They suggest, however, that the use of this design makes sense for the early stages of research on a given subject. This study is categorized as being in the early stages of studying EI in the nursing field.

A qualitative design was considered but not chosen. A qualitative design according to Creswell (2008) should be used when the researcher does not know which are the important variables to examine. The variable of job satisfaction has been widely studied in nursing research but not extensively as it relates to EI, which itself is a widely studied variable but remains in early stages within the confines of nursing literature. Although more qualitative studies can be done as it relates to EI, some themes have already been identified by Kooker et al. (2007). They analyzed stories to identify those factors that led to positive outcomes in patient care and nurse retention. In a set of questions generated to explore the application of EI competencies to the nursing profession, one specifically asked whether higher EI scores of individual nurses correlate with individual nurse satisfaction scales. As a scholar practitioner, this is where research could help inform an organization if building EI knowledge would benefit the nurses employed. Nurse satisfaction is a predictor of positive outcomes.

A mixed method of qualitative and quantitative design was also considered. This method, however, requires an increased amount of time and resources because of the

expertise needed in both designs of qualitative and qualitative research (Creswell, 2008). Such time and resources have not feasible for the researcher at this time. However, it should be noted that participants exposed to exploratory questioning by the researcher may have also introduced data manipulation that may interfere with the validity of the results.

The best fit then for the design was one that would help to understand best predictors of outcomes. In this case, whether EI influences job satisfaction was examined by using tools that measure EI and job satisfaction in a real work setting for nurses in a community hospital.

Summary

Most of the research on emotional intelligence has been conducted in social science domains, and much interest in the subject was generated through popular literature. Research into how EI works was conducted first in other industries besides health care. Although not much research has been conducted about EI and health care, the ones found focus on the effects of EI in the work environment.

Research on EI is still in its infancy as it relates to the nursing profession. Several authors called for research to be conducted on job satisfaction and EI. However, studies have shown that there is a relationship between EI and nurses' job performance levels, job retention, and longer careers. Most studies on nurse job satisfaction have not focused on the intrinsic factors that may contribute to how nurses decide if they are satisfied in their jobs. The number of research studies is almost equal in both conceptualizations of

EI as ability and EI as a trait. For the purpose of this study, the ability model has tools that have been evolving and have established validity and reliability such as the MSCEIT. More data collected on the EI of nurses will contribute to the body of data that exists already and in measuring nurse job satisfaction. Identifying whether a relationship exists between job satisfaction and EI could help a health care organizations decide if EI should be incorporated as part of its knowledge development strategy.

CHAPTER 3. METHODOLOGY

Introduction

The purpose of this chapter is to introduce the methodology used to answer the study's three research questions. They are

Question 1. Is there a significant relationship between emotional intelligence and job satisfaction of nurses that work in a community hospital setting?

Question 2. Is there a significant relationship between experiential EI and years of nursing experience?

Question 3. Is there a significant relationship between strategic emotional intelligence and nurse job satisfaction?

A quantitative, correlative approach has been taken where the strategy of inquiry was the use of two surveys to measure the variables nurse satisfaction and EI. There is a lack of understanding of the effect intrinsic factors, such as emotional intelligence, have on nurse job satisfaction. The purpose of this correlative study is to examine the relationship between emotional intelligence and nurse job satisfaction of a group of nurses that work in a community hospital. A desired outcome of the study is to help health-care leaders evaluate and implement appropriate strategies to increase nurse job satisfaction, which has been linked to nurses having a higher commitment to the organization, an intent to stay in the job, and a lower turnover rate (Gajewski et al., 2010). This is important to the well-being of a health-care organization and to patient outcomes. This chapter includes the researcher's philosophy, research design, and strategy as well as the description of the instruments used. Reliability and validity of the

instruments is reported along with findings, limitations of the study, and ethical considerations.

Researcher's Philosophy

The researcher's philosophy stems from the scientific method or a positivist worldview. As a nurse, this worldview has been influenced by the medical profession and the choice of approach reflects a need to identify causes that affect outcomes. However, the researcher also recognizes that qualitative research is at the other end of the research continuum and acknowledges that it has been increasingly used in the nursing profession to inform nursing practice. For this study in particular, an initial qualitative study on identifying EI in nursing practice was reviewed where one of the suggested research themes questioned whether higher nurse satisfaction scores correlate with higher scores on EI (Kooker et al., 2007). To answer the suggested idea, the two variables identified can be measured thereby adding to the understanding of the relationship between the two. Subsequent observations could then be used to refine the concepts behind EI and nurse satisfaction. Since critics of EI have focused mainly on debating the reliability and validity of the tools used to measure EI, a tool that can measure EI as an empirically measurable ability was chosen to minimize the bias of the findings. This approach remains true to the scientific method and thus makes it easier to generalize the findings.

Research Design

A quantitative method of correlation was chosen where the dependent variable is nurse job satisfaction and the independent variables are the emotional intelligence of the nurse, demographic, and career information data. According to Leedy and Ormrod (2005), a correlational study falls under descriptive quantitative research where possible correlations among two or more phenomena are explored. If there is a relationship, then the directions, magnitudes, and forms of observed relationships can be documented for further studies (Bordens & Abbott, 2008; Leedy & Ormrod, 2005).

The study assumes that when nurses have high satisfaction scores their emotional intelligence scores are also high. The study also assumes that the longer a nurse has been practicing nursing, the higher his or her experiencing emotion score will be due to prolonged exposure to varying emotions in working with teams and patients. The third assumption is that a higher score in strategic EI will point to greater job satisfaction because the measure reflects the capacity of the nurse to understand outcomes over time and manage emotions to reach individual goals. A nurse's ability to navigate complex work environments and relationships influences job satisfaction. The correlation method was chosen because little is known, and no study has been done, about the relationship between emotional intelligence and nurse satisfaction. According to Bordens and Abbott (2008), this inquiry could be described as an initial exploratory stage of research. The strategy of inquiry is survey research, with a cross-sectional sample of the potential study population completing two questionnaires. The expert guide model used to develop the research design is Leedy and Ormrod (2005).

Research Design Strategy

A quantitative, correlative study has been used to explore the relationship between nurse job satisfaction and EI. Job satisfaction may be dependent on how a nurse knows how to perceive, use, understand, and manage emotions. Knowing how to manage emotions in different situations allows a nurse to process information and make choices that contribute to his or her work environment. Mayer et al. (2004) proposed that emotions govern and often signal responses to situations. This is the philosophical basis for measuring EI, to predict nurses' responses to situations. The study design permits investigation of the relationship between the EI of a nurse and his or her job satisfaction. This design helps in establishing and possibly developing generalizations that subsequently will contribute to theory (Leedy & Ormrod, 2005).

Gathering data in the early stages of research in a correlational approach has helped identify potential causal relationships that in turn provide a rich number of hypotheses to be tested later (Bordens & Abbott, 2008, p. 102). This research design was proposed to provide potential causal relationships between EI and nurse satisfaction. These causal relationships may help in predicting if those nurses whose education includes EI training successfully develop workplace relationship skills that influence job satisfaction. As the field of EI in nursing practice is in the early stages, a correlative, quantitative study is a research method and design best fit for this study.

Research Questions

There is a lack of understanding of the effects intrinsic factors, such as EI, have on nurse job satisfaction. The purpose of this correlative study is to examine the relationship between EI and nurse job satisfaction of a group of nurses that work in a community hospital. A desired outcome of the study is to help health care leaders evaluate and implement appropriate strategies to increase nurse job satisfaction, which has been linked to nurses having higher commitment to the organization, an intent to stay in the job, and a lower turnover rate (Gajewski et al., 2010). This is important to the well-being of a health-care organization and to patient outcomes. Therefore, it is important to examine the hypothesized relationship between EI and job satisfaction. This quantitative study examines this relationship guided by three research questions.

Question 1. Is there a significant relationship between emotional intelligence and job satisfaction of nurses that work in a community hospital setting?
The null hypothesis (H_0) is that no significant relationship exists between emotional intelligence and nurse job satisfaction.

Question 2. Is there a significant relationship between experiential EI and years of nursing experience?
The null hypothesis (H_0) is that no significant relationship exists between experiential emotional intelligence and years in nursing.

Question 3. Is there a significant relationship between strategic emotional intelligence and nurse job satisfaction?
The null hypothesis (H_0) is that no significant relationship exits between strategic emotional intelligence and nurse job satisfaction.

To answer the three questions and test the hypotheses, three constructs were conceptualized, operationalized, and measured. These measures were used to gather data for statistical analysis. Firstly, the ability model of EI was operationalized via the

MSCEIT test. Secondly, job satisfaction was operationalized via the Job in General tool. Thirdly, participants reported demographics and career information in the demographics section of the survey. Figure 1 depicts the study design.

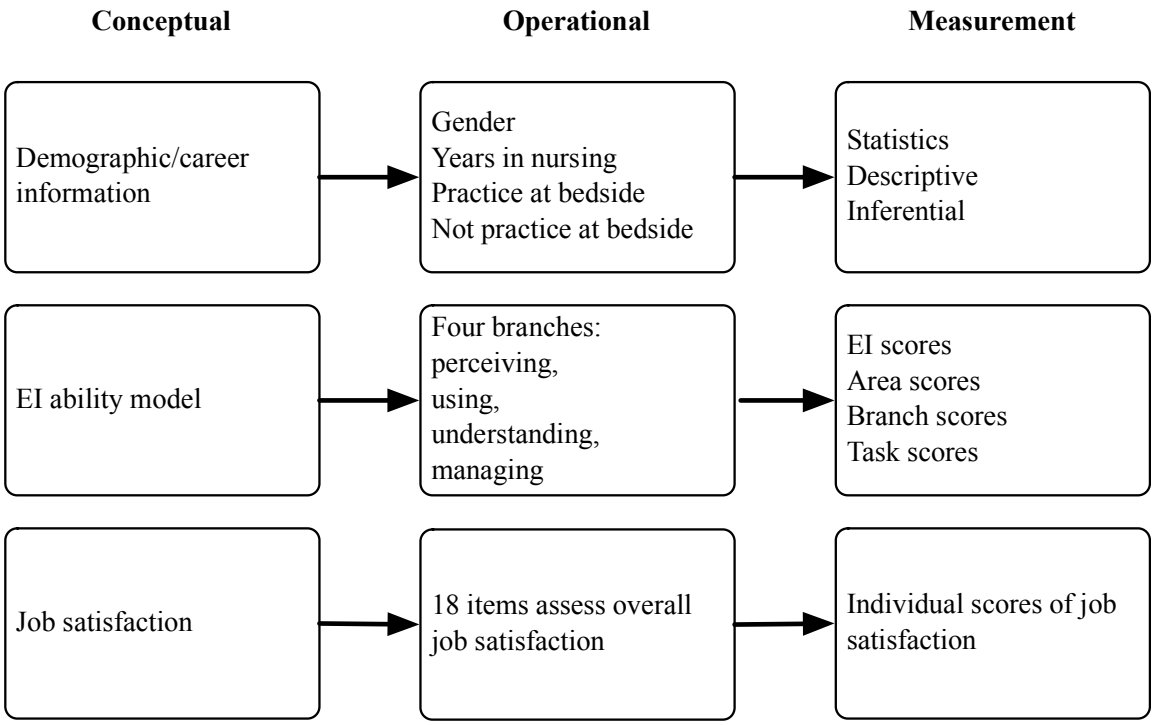

Figure 1. Study design

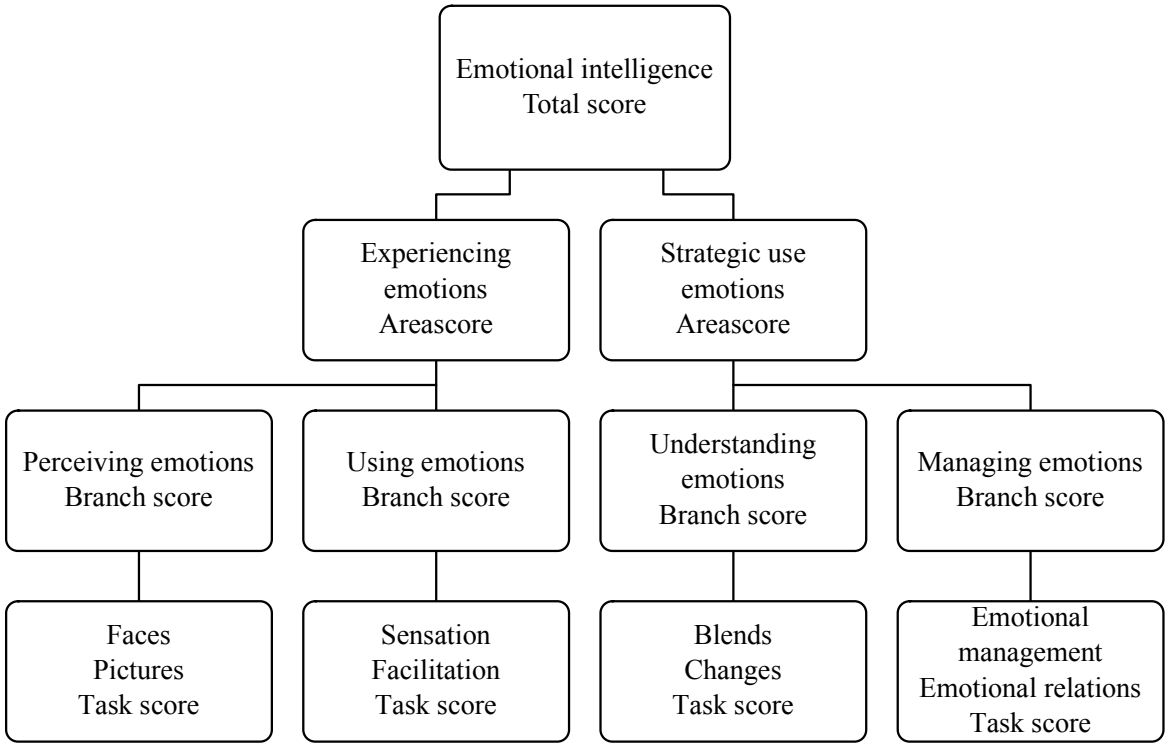

Figure 2. Emotional intelligence (EI). Conceptual and operational structure of EI.

Operationalizing Emotional Intelligence

Emotional intelligence, the independent variable, was operationalized with the MSCEIT, which measures the ability model of EI. Emotional intelligence is divided into branches like a tree. There is a total score for EI that is comprised of scores from two areas of EI, the experiencing emotions area and the strategic use of emotions area. Each area has two branches that in turn measure 1) how emotions are perceived, 2) how emotions are used, 3) understanding emotions, and 4) managing emotions. Each of the four branches is subsequently evaluated by performance on two tasks, resulting in eight total tasks for each area. According to Mayer et al. (2004), the order of the branches represents the degree to which the ability is integrated within the individual. Within each

branch, there is a developmental progression of skill. The MSCEIT tool is further described in the measurement section of this chapter. Figure 2 shows the conceptual and operational structure of EI.

Operationalizing Job Satisfaction

Job satisfaction was measured with the Job in General questionnaire. Participants responded to 18 short questions asking nurses to describe how they feel about their jobs. This tool produced one score per participant for job satisfaction.

Operationalizing Demographics/ Career Information

Three variables were obtained from nurse-participants in the self-reporting section of the survey. This included information on gender, years of nursing practice, and whether or not the participant provides direct patient care. A convenience sample of 196 nurses that work in a community hospital setting was asked to participate voluntarily in this study. Of that goal convenience sample, 71 nurses participated, of which 57 completed the study (i.e., fully completed all survey instruments). Following IRB approval, participants were recruited via flyers presented in nursing meetings. Flyers were read verbatim. The same flyers also served as documents posted to the hospital intranet site and as posters hung in nurses' work areas. The flyers provided information on the study and invited nurses to participate voluntarily by going to a survey website.

The data for the two instruments and the demographic data were collected electronically through a website designed for the purpose of this study (www.nursing-

ei.com). A password was provided for participants to access the surveys. Upon opening the website, informed consent was obtained from participants. Once participants gave their consent, demographic data was collected and direct links provided to lead nurses first to the Job in General (JIG) tool and second to the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT).

Testing the Hypotheses

Each resulting measurement was used to answer the research questions and test the hypotheses. Descriptive and inferential statistics were employed to analyze the data collected. Descriptive statistics were used to report on the raw data and demographics. Inferential statistics were used to perform a regression analysis and identify predictors of job satisfaction from the EI scores and for EI.

Question 1. Is there a significant relationship between emotional intelligence and job satisfaction of nurses that work in a community hospital setting?
The null hypothesis (H_0) is that no significant relationship exists between emotional intelligence and nurse job satisfaction.

To test this hypothesis there were two data files, one for the JIG and another for the MSCEIT. Both were in Microsoft Excel format and included participants' raw data scores for each instrument. Analysis was conducted by entering raw scores into SPSS, coding raw data for each total score and the six sub-scores of the MSCEIT for each participant. A new variable, EI Total Score, was created. Then, the JIG total score was coded for each participant and a total job satisfaction score was created (JOBSAT). A

Pearson's *r* analysis between the total EI score and total job satisfaction was executed. Finally, interpretation of the data as to direction of the correlation and interpretation of the results were conducted.

Question 2. Is there a significant relationship between experiential EI and years of nursing experience?
The null hypothesis (H_0) is that no significant relationship exists between experiential emotional intelligence and years in nursing.

To test this hypothesis, a new variable EI sub-score for EI experience area (EIEXP) was created. A multivariate analysis was performed and a regression model built grouping nursing experience into five-year blocks.

Question 3. Is there a significant relationship between strategic emotional intelligence and nurse job satisfaction?
The null hypothesis (H_0) is that no significant relationship exits between strategic emotional intelligence and nurse job satisfaction.

To test this hypothesis, a regression model with six sub-scores was created to see if strategic EI served a predictor of job satisfaction. This study lends itself to ask many other questions. However, the chosen questions expand on previous findings and build on themes that were recommended for further research.

Significant Research Studies

Significant studies related to EI and job satisfaction are few. Most studies on job satisfaction focus on the work environment, an element not addressed in this study. As

reviewed in the previous chapter, most recent work has been done by Kooker et al. (2007), Codier et al. (2009), and Codier et al. (2008). They began their work with a qualitative analysis of nurses' stories to identify those factors that lead to positive outcomes in patient care and/or contributed to nurse retention. These results influenced this study's investigation of the potential correlation between high scores on a job satisfaction scale and high emotional intelligence scores in the nursing field. The first research question addresses this theme.

In later studies, these authors addressed some of the other questions generated in this first study. Using the MSCEIT, they have found that a positive correlation existed between high EI scores and clinical performance levels as evidenced by participation on a career ladder ($p \leq .05$). Interestingly, one finding was that nurses generally had low total EI scores, yet they maintained high sub scores of perceiving, using, and managing emotions. This is an interesting finding as it has been said that a nurse is a high emotional labor user. Codier et al. (2009) reported that EI measured with the MSCEIT correlated positively with higher performance ($p < .01$), longer career ($p < .05$), and a higher rate of retention ($p < .01$). This study's second research question addresses the potential relationship between a longer nursing career and high EI.

Lam and Kirby (2002) found a positive correlation between EI and general intelligence in the areas of perceiving and regulating emotions r^2 change = .074, F (2,292) = 23.24, ($p < .001$), an important finding for further study of how workers' interpersonal relationships influence job satisfaction. Morrison (2008) reported a positive correlation between EI and self-awareness ($r = .247$), self-management ($r = .322$), social

awareness (r = .307), and relationship management (r = .368). The ability to handle conflict impacts job satisfaction, and Morrison's study found that those with longer nursing careers better handled conflicts. Tabak and Orit (2007) found that nurses' stress levels depend on their approach to conflict with doctors. If nurses integrate and dominate in the conflict, they subsequently reported less stress. They found that job satisfaction positively correlated with integrating tactics r = .43 (p < .001) and that those nurses with longer careers used these approaches to conflict more so than did nurses that had not practiced as long. Job satisfaction negatively correlated with obliging and avoidance r = -.18 (p < .05) conflict resolution tactics. This is a significant result for this investigation. In the progressive model of ability EI, the capacity to understand and manage emotions shows whether an individual can anticipate outcomes and how to manage the situations. The third question in this study explores if job satisfaction is mediated by understanding and managing emotions, which itself is the portion of EI that helps a person manage conflict.

Laschinger et al. (2009) had similar findings. Their study showed that other than the work environment, a collegial work setting characterized by mutual respect among nurses and common restraint from incivility decreased the potential for burnout, and affected engagement and job satisfaction (r^2 = .46). Environmental predictors of job satisfaction were identified as organizational commitment, job stress, and autonomy, peer and supervisor relationships. These all involve the individual approach of a nurse toward relationships and commitment.

Ogińska-Bulik (2005) calls EI a factor responsible for success in life and for psychological well-being. EI helps identify occupational stress and ways to take action so that stress will not negatively affect the health outcomes of workers. Ogińska-Bulik found that workers with higher EIs exhibited better capacities to handle stress. This study found that participants with high EI as measured by the ECi tool, which is a mixed ability EI and trait EI tool, showed a better capacity to handle stress and had less health disorders $r = -.023$ ($p < .001$).

The current study explored EI specifically in the area of job satisfaction. Stress, conflict management, and relationships depend on a nurse's ability to perceive, understand, use, and manage emotions. It is assumed that the ability to do this is a factor in job satisfaction.

Sampling Design and Setting

Sampling

This study's target populations were nurses who work in hospitals located in the United States. The accessible population was a sample of nurses who work in a community hospital in the state of Maryland.

Non-Probability Sampling

Setting. The convenience sample of nurses for this study was recruited from a corporation that manages two acute care community hospitals accredited by the Joint

Commission on Hospital Accreditation. Both hospitals are located in the state of Maryland. The corporation also runs an outpatient center and a primary care clinic. Nurses are considered employees of the corporation; however, they report directly to their respective hospital. The hospitals provide services in all acute areas, such as inpatient and outpatient care through emergency services, peri-operative services, medical surgical, intensive care, maternal childcare, neonatal intensive care, and behavioral health services. As the researcher was the chief nursing officer (CNO) for one of the corporation's two hospitals and nurses working at this site structurally reported to the researcher, it was decided that research would not be conducted at the researcher's place of work. Permission to obtain a convenience sample, therefore, was obtained from the IRB of the corporation's other community hospital and from the acting President and CEO of the health care corporation.

Accordingly, the study was conducted only at one of the corporation's two hospitals. This site has a separate CNO and a separate reporting structure. Study participants were recruited only from this facility to diminish the possibility of a conflict of interest. Nurses at the researcher's place of work were not recruited as participants. This approach mitigated the possibility of conflict of interest as the researcher works for the corporation, but not at the study-site hospital. The hospital's IRB approved the study site.

The sample of 196 possible participants included nurses who practice at the bedside, where patients are in the hospital for care, as well as those in other hospital departments such as nursing education, case management, hospital quality department,

information systems, and nursing management. The study enrolled 71 participants, of which 57 completed the study.

Sample size. A convenience sample was used. The total number of RN employees in the community hospital site was 400. Using a sample size calculator, it was determined that 196 total nurses needed to be surveyed to yield a 95% confidence interval of 5.0. This convenience sample of 196 was calculated with an online sample calculator (http://www.surveysystem.com/sscalc.htm). In their discussion of how to identify a sufficient sample size, Leedy and Ormrod (2005, p. 207) suggest that if sample a size is around 500, then 50% of the population should be sampled. Recruitment for the online study resulted in a total of 57 completed surveys. Tabachnick and Fidell (2007, p. 123) provide a commonly used calculation to determine the necessary sample size to calculate a correlation. They recommend that the sample size be 50 + 8(m), which means that to a sample of 50 participants eight more should be added per each independent variable. Therefore for this study, which has one independent variable, 58 participants was the recommended sample size for correlation analysis. The obtained sample of 57 participants fell within the acceptable limit.

Convenience sampling was chosen because the study site is one organization within a corporation of health-care facilities. Corporate culture is reflected in all of the facilities, and therefore the potential to generalize the findings to the other facilities within the corporation was a possibility.

Purposeful and random sampling methods were considered. However, these methods would have required a random choice of participants or as in the case of

purposeful sampling, a deliberate selection of participants. Neither method was chosen to better maintain participant anonymity and to avoid the Hawthorne effect: the perception of coercion that could have arisen as the researcher is employed at the corporate level regardless that she does not directly supervise the nurses recruited for the study. Survey questions regarding demographic and career variables were carefully considered to protect participants from reporting identifiable information.

Measures

Two different instruments were used to measure the variables: The Job in General Scale (JIG) and the Emotional Intelligence Test, v2.0 (MSCEIT). These instruments were chosen because their validity and reliability have been established and because they have been widely used in published research.

Job in General Scale Overall

Based on theoretical and empirical evidence, the authors of the JIG developed an 18-item instrument intended to provide an overall evaluation of how workers feel about their jobs (Smith, Kendall, & Hulin, 1969; Smith et al., 2009). According to the quick reference guide for the JIG, the measure uses 18 items to assess overall job satisfaction (Brodke et al., 2009). The items for this scale consist of lists of short phrases and adjectives of five or less words of low reading difficulty. The participants mark Y (yes) if the adjective or phrase describes the job situation or N (no) if the adjective or phrase does not describe the work situation. A third choice (cannot decide) means that the

participant cannot decide that the word or phrase describes the work situation. A positive response is given a score of 3 or 0 depending on the wording of the item, and a response of "cannot decide" is scored as 1 point. The rationale is that 1 point is close to an unfavorable response (Smith et al., 1969). The overall score range is 0-54. The results were scored by the researcher to provide an overall measure of job satisfaction.

Review of Job in General Scale

In a review of the 1997 revision of the JIG for the Mental Measurements Yearbook, Michael Harwell describes the JIG as a widely used tool for assessing job satisfaction that has considerable evidence to support its psychometric measurements (Harwell, 2003). The JIG shows a high reliability via coefficient alpha ranging from .86 to .91 and there is evidence of convergent and discriminant validity as reported by Ironson, Smith, Brannick, Gibson, and Paul (1989). Harwell further reports that a weakness of the JIG is that there is a lack of information on specific job categories represented in the numbers of employees that create the norms. Permission was obtained to use this tool from Bowling Green State University.

MSCEIT v2.0

The second instrument used was the Mayer-Salovey-Caruso Emotional Intelligence Test, version 2.0 to measure the emotional intelligence of the nurse-participants. This tool was chosen because of the researcher's philosophy of using empirical data to explore hypotheses. The tool is based on the idea that EI is an ability

and therefore it involves problem-solving with and about emotions as opposed to using self-reporting scales. According to Brackett and Mayer (2003), the creators of the tool report it as objective, and right or wrong answers are determined by consensus or expert scoring. See Figure 2 for the conceptual and operational structure of the tool.

The MSCEIT v2.0 is a 141-item scale that measures four specific EI skills called branches or abilities: (1) perceiving emotions, (2) using emotions to facilitate thought, (3) understanding emotions, and (4) managing emotions. The four branches are measured with two tasks each for a total of eight tasks. For example, the perceiving emotions branch of the MSCEIT refers to the ability to discern, understand, and convey emotions as expressed by individuals or as elicited by objects. The MSCEIT measures this branch with two tasks, or test sections: one termed "faces" and the other "pictures." Each of the branches is assessed by way of corresponding tasks and specific question types intended to gauge the respondent's ability in that branch (Caruso, 2004; Mayer, Salovey, & Caruso, 2002).

As reported in the technical manual, split-half reliability coefficients for the four branches range from $r = .80$ to .91 and for the entire test $r = .91$ (Mayer et al., 2003). The test has been found to have factorial validity and discriminant validity in that it scores high with other measures of intelligence in its understanding emotions branch $r = .25$ to .35. It has been found to have a weak overlap of self-report EI and ability EI. This means that the answers cannot be faked as had been reported in self-reporting tools for measuring EI. The tool's predictive ability has been demonstrated for academic performance and for pro-social and positive behaviors (Bracket and Mayer, 2003; Grewal

and Salovey, 2005; Mayer et al, 2004; Mayer et al., 2008; Mayer et al., 2003; Salovey and Grewal, 2005;).

Review of MSCEIT

Reviewed by Skaar (2007), the MSCEIT confirms that content validity is evidenced in the manual and its predictive ability has been extensively reported. Its reliability ranges from .93 total scores to .64 in subsets when consensus scoring is chosen for comparisons and from .91 total scores to .62 in subsets when expert scores are used. For this study, consensus scoring was used. Skaar also reports that there is a potential for findings of research in the academic environment to be used in interventions and sees an abundance of opportunities for further study. He reports that further work needs to be completed to better the tool's reliability and validity for specific age groups under age 17. Mayer et al. (2002) report in the user's manual that the test has a full-scale reliability of .91 for total score, a reliability of .90 for experiential EI area score, and .85 for strategic EI. These are the scores measured for this study.

The way EI is measured varies in content and methods of assessment. Conte (2005) reviewed several tools, including the MSCEIT, and points out that ability-based EI, such as is measured by the MSCEIT, is the most promising. Conte also reports that although EI measures have adequate internal consistency and reliability, more studies need to be done to increase the evidence of incremental, discriminant, and predictive validity. Conte also reports the reliabilities of the MSCEIT to be higher than .75 and encourages further research in predicting outcomes in job performance and other work

outcomes. Permission for the MSCEIT, v2.0 tool was not granted until the proposal had gone through the IRB process. A PDF file was provided for a month. Once the permission was granted, the researcher had access to the online survey as well as permission for its use.

The tools were not altered in any way for this study. The JIG has strong validity and reliability, however a weakness of the tool is a lack of information about the specific job categories represented in the numbers of employees that created the norms. When the completed, the results for the JIG were clearly identified as coming from the nurse job category. Mayer, Salovey, Caruso, and Sitarenios (2003), the creators of the MSCEIT, recommend test interpretation at both the total scale level and at the branch level because reliability is excellent. The researcher followed this recommendation so as to not to threaten reliability or validity of the test. The reviewers, including the test creators, encourage new studies to add to the body of studies already conducted.

Data Collection Procedure

After approvals were obtained, the IRB process completed, and a start date set for the research, volunteer recruitment began by announcing the research study through printed flyers. The flyers were distributed by the researcher throughout the hospital and were posted on nursing units' bulletin boards. The flyer was also published in the nursing newsletter and on the hospital intranet site. Additionally, flyers were put in nurses' internal mailboxes and distributed at nursing staff meetings and committee meetings.

The flyers indicated that a research study would be conducted and by whom. The flyers appealed to nurses to participate in research being conducted by a fellow nurse. The flyer gave a brief explanation of the study and instructions for accessing the Nursing-EI website (www.nursing-ei.com) from a personal or work computer.

Volunteer participants were directed to a password-protected website. They were asked if they wanted to proceed, and if so, the site directed them to the informed consent section. After reading the informed consent information, participants gave consent by clicking the appropriate box. Instructions were given as to how to proceed with answering and submitting responses for the study's instruments via the computer. A page with three demographic questions was included. It asked if the participant was a staff RN who provided direct patient care, an RN who worked in the hospital but did not provide direct patient care, years of experience as an RN, and gender. Participants were asked to click on the appropriate answer for each question. Careful consideration was taken to maintain participant anonymity. Once these few demographic questions were answered, participants were directed to complete the JIG. The JIG consisted of one question and 18 items. Participants were required to click yes, no, or "?" if undecided. It was estimated that the JIG would take approximately five minutes to complete. At the end of the JIG survey, participants were then directed via hyperlink to the MSCEIT.

The MSCEIT consisted of 141 questions divided into eight tasks in which the participant had to identify emotions from viewing pictures or selecting the best strategy to handle emotions from several options provided. It was estimated that the MSCEIT would take approximately 40 minutes to complete. For anonymity, a computer-generated

number was assigned to each participant and served to link the individual's MSCEIT to the individual's JIG yet retain anonymity. This allowed for the three sets of data to be formed: one that had the results of the JIG, another data set for the MSCEIT, and a third set with demographic and career information. Data transmissions were secured by SSL and the data storage was encrypted. Data files were used to organize the information for statistical analysis.

Data Analysis

The data were analyzed using SPSS statistical software both for descriptive statistics and to explore if relationships existed between the two EI variables and job satisfaction. SPSS is a widely used computer program for statistical analysis and is used by researchers for its data management capabilities. Each resulting measurement was used to answer a research question and test the corresponding hypothesis. Descriptive and inferential statistics were applied to explore the data collected. Descriptive statistics were used to report the raw data and demographics. Inferential statistics were used to analyze via regression analysis potential predictors of job satisfaction from EI scores and demographic and/or career information.

As explained in the research question section above, Pearson's Product Correlation coefficient (r) was used as the measure of correlation in the study. This was achieved by obtaining the data sets for both tools from the owners of the respective tools. There were two data files, one for the JIG and another for the MSCEIT. Both were in Microsoft Excel file format and included the raw score data for each participant for the

corresponding test. The analysis was done by entering the raw scores into SPSS, and coding the raw data for total score and each of the four sub scores of the MSCEIT for each participant. A new variable EI Total Score was then created. Next, the JIG total score was coded for each participant, and a total job satisfaction score was created (JOBSAT). The Pearson's *r* analysis between total EI score and total job satisfaction was executed. Interpretation of the data as to direction of the correlation and analysis of the results were conducted. Conclusions were drawn and recommendations based on the findings stated. Simple correlations were used as a result of the response rate, which did not allow for a regression model to be used.

The data file was password-protected, and the identity of subjects was in ID number format. The data file will be destroyed from the hard drive seven years following completion of the study, along with any extant data in hard copies. If a backup file remains on a CD, the CD will be stored with all safety measures taken and later destroyed in the same manner.

Limitations of the Study

1. The study was limited to the nurses in a particular setting due to the convenience sampling, which limited generalizing the findings.
2. It was limited to nurses who volunteered to participate in the study, who have basic computer skills, and were willing to take the time to participate.
3. It was limited in that a correlational study does not indicate causation. It captures only a moment in time.
4. It was limited in that nurses had to know how to use the Internet.

Internal Validity

The internal validity of the research was guarded first by using instruments that had been used extensively and whose validity and reliability were previously established. The data collection occurred via website and where specific instructions guided nurses through the participation process. Data collection was completed within a limited period of time before proceeding to data analysis.

External Validity

The research was conducted in a hospital and study volunteers were nurses who worked in that hospital. They provided a real life scenario of nurses and gave information about their job satisfaction and answered the instrument questions that served to measure three sets of variables (Leedy & Ormrod, 2005). The sample was representative of the group measured (i.e., nurses). The research design could be replicated following the same design process. The results could easily transfer to the general nursing population in this setting, but not to the greater population of nurses due to the convenience sample. The research was applicable to the time and place where it was conducted.

Ethical Issues

The researcher and all nurses participating in the study were employed by the same health-care corporation. The nurses that worked at the hospital study site did not report to the researcher in any way. Although the researcher worked at a different facility

than the participants, this presented a potential conflict of interest. Disclosure of the research and its purpose could have meant that nurses would know who was conducting the research and present the possibility of threat of coercion. This potential conflict of interest was mitigated by ensuring that informed consent was obtained from the volunteer participants and that these same remained anonymous. Although the identity of the researcher was known to the participants since it was documented on the recruitment flyer, the researcher was not engaged in administering the tests. The surveys were self-administered by the volunteer participants via any computer with access to the Internet.

The recruitment flyer provided information on how to access the website (www.nursing-ei.com), which was housed in a certified secured socket layer. They were given a password to access the website and create an account to access the surveys. The accounts were secured with username and password known only to the participant. The participants were asked not to provide any information that could identify them. The hospital's IRB approval to use the site for the study was obtained.

The study was conducted in a hospital using a convenience sample of nurses. Participation was solely on a voluntary basis. Participation was solicited through posters and flyers announcing the research study as the research dates approached. On the flyer, potential volunteers were encouraged to participate in an opportunity that would contribute to the body of nursing research and one conducted specifically for nurses and by a nurse. This value was in keeping with the organization, which had emphasized that evidence should guide the practice of nursing.

The possibility of the threat of coercion was managed by highlighting the fact that the researcher was the chief nursing officer at another hospital in the corporation. This was prominently noted in both the recruitment materials and in the informed consent document. Anonymity was assured by having the consent process completed on a secure website managed independently of any employer-related software. The flyer announced that participation was voluntary, and the informed consent information addressed how anonymity would be maintained. It also explained how participants could choose to terminate participation in the study at any time without fear of threat to their work status. To maintain complete anonymity, the researcher did not provide results of individual tests because this would necessitate that the participant provide personal contact information. All results were presented in aggregate form.

Confidentiality of participants was maintained. The computer tests were password-protected on a secured website. Both the research site and the Capella University IRB processes were strictly followed. Confidentiality of the data collected was maintained by keeping the information in a password-protected computer file, and any information gathered on paper hardcopy was kept in the researcher's office in a locked file. The information will be kept for seven years and then will be destroyed by deleting computer files and shredding any information remaining on paper.

The researcher successfully completed four courses in research design and methods in the PhD program of Capella University. This included HS 8100 Fundamentals of Social Science Research, HS 8111 Quantitative Research Methods, HS 8112 Epistemology of Practice Knowledge, and 8113 Advanced Study in Research

Methods. She also completed the Collaborative Institutional Training Initiative (CITI). All of these learning opportunities addressed how to relate to research participants. If any questions or concerns came up during the study, the researcher's contact information was available on the flyer and on the informed consent document, as well as the contact information for the committee chair, Lynn Hackstaff, PhD. There was one call to Dr. Hackstaff related to signing into the website. The matter was referred back to the researcher, and additional explanation was given to the participant. No further questions were raised.

Summary

A quantitative, correlative design was used to conduct this study. Surveys were administered to measure EI and job satisfaction of nurses that work in a community hospital. The data were analyzed to assess the relationship between the dependent variable (job satisfaction) and the independent variable (EI), to establish if there was a relationship between these two phenomena.

CHAPTER 4. DATA COLLECTION AND ANALYSIS

Introduction

This chapter presents the analyses and subsequent results of a correlative study that examined the relationship between emotional intelligence and nurse job satisfaction of a group of nurses that work in a community hospital. A further aim of the study was to help health-care leaders evaluate and implement appropriate strategies that could increase nurse job satisfaction, which has been linked to nurses having higher commitment to the organization, intent to stay in the job, and lower turnover (Gajewski et al., 2010). Not only is nurse job satisfaction important to the well-being of a health-care organization and to patient outcomes, but also it is valuable information to the scholar practitioner.

The study employed three research questions to examine the relationship between emotional intelligence and job satisfaction of nurses employed in a community hospital.

Question 1. Is there a significant relationship between emotional intelligence and job satisfaction of nurses that work in a community hospital setting?
The null hypothesis (H_0) is that no significant relationship exists between emotional intelligence and nurse job satisfaction.

Question 2. Is there a significant relationship between experiential EI and years of nursing experience?
The null hypothesis (H_0) is that no significant relationship exists between experiential emotional intelligence and years in nursing.

Question 3. Is there a significant relationship between strategic emotional intelligence and nurse job satisfaction?
The null hypothesis (H_0) is that no significant relationship exists between strategic emotional intelligence and nurse job satisfaction.

This chapter is divided into three sections and a conclusion. The first section describes the sample population, including factors that affected subject participation in the study. The second section presents the results obtained via analyses of data collected in the survey tools. The third section presents study results by research question. The conclusion summarizes these findings and introduces ideas for recommendations made later in Chapter 5.

Description of the Sample

The study population comprised 400 nurses employed in a community hospital setting. Subjects voluntarily participated in the study. The method of participant recruitment was twofold: volunteer recruitment via flyers distributed at the study site and presentation of these same flyers at regularly held nursing meetings at the hospital research site.

Description of Participants

The initial study design called for a sample population of 600 nurses from two hospital study sites. The corresponding minimum required sample for this population would have been 234 participants. Following an IRB review and efforts to prevent potential conflict of interest on the part of the researcher, the study was redesigned to include a sample population of 400 nurses from one of the two original hospital sites. This redesign lowered the minimum required sample to 196 study participants. However, the data collected from the 57 completed, online surveys provided sufficient data to

complete statistical analysis according to Tabachnick & Fidell (2007). Demographic information collected in the study included: whether nurse participants worked primarily at the bedside or away from the bedside, gender, and years of nursing practice.

The response rate for the survey was 36% or 71 voluntary, anonymous participants of the required 196. Of these, 57 or 29% of participants completed all parts of the study; these completed surveys were used to compute JOBSAT and EI scores. Missing data elements or abandonment of the study was reflected in 14 participants or 18% of respondents. Of the participants that completed both surveys, 3.5% (n=2) were male, indicative of the gender representation in the nursing profession. Correspondingly, females accounted for 96.5% (n=55). Forty-five nurses or 79% reported that they practice at the bedside and 12 or 21% reported they did not.

Six (10.5%) of the study participants reported 5 years of nursing practice or less; 9 participants (15.8%) reported having 6 to10 years of practice; 21 participants (36.8%) reported 11 to15 years; and 21 participants (36.8%) reported having 16 to 20 years of nursing practice.

Factors Influencing Participation

Initial survey delivery and data collection were to be completed via an online, secured website created for the study. Participants were slow to respond to the online survey, and a change in recruitment was implemented to allow participants the choice to complete the survey electronically or on paper hard copy. Both the hospital research site and Capella IRB approved this modification.

Additionally, other on-site factors may have influenced the initial participant response rate. Concurrently with the data collection period, the hospital began a process of implementing electronic medical records. This was a decision made at the corporate level and with a sense of urgency to meet new health-care federal policy mandates for documentation. These changes in medical records management required all nurses at the study site to complete mandatory training. It also took a number of nurses away from regular duties to build and test the new electronic medical records system. During this same period, two regulatory inspections took place. The State Department of Health and Human Services and the Joint Commission on Hospital Accreditation conducted unannounced, regulatory five-day visits to the study site. These inspections were unrelated to the implementation of the electronic medical records system.

Adherence to and going live with new electronic medical records requirements and the regulatory inspections may have distracted potential participants from volunteering to complete the surveys. During the past year, the organization evaluated a possible merger with a larger hospital system and in the last month of the study, the organization's CNO for the study site resigned. These may have been additional causes for distraction for the entire nursing workforce. Although a higher level of response is always desirable, the response rate of 39% for this study was higher than expected. Studies dependent on electronic return of surveys are influenced by the length and time it takes to complete and these rates do not necessarily compromise validity (Deutskens, Ruyter, Wetzels, & Oosterveld, 2004; Morton, Bandara, Robinson, & Carr, 2012).

Statement of Results

Descriptive and inferential statistics were applied to analyze the collected data. Descriptive statistics were used to report the raw data and demographics. Inferential statistics were used to analyze resulting data.

Total Scores for Job Satisfaction (JOBSAT)

Job satisfaction scores were obtained via the Job in General Survey (JIG). The JIG instrument used 18 items to assess overall satisfaction. The scale items consisted of short phrases and adjectives listing five or fewer words of low reading difficulty. Participants marked "Y" (yes) indicating that the adjective or phrase described their job situation, "N" (no) meaning that the adjective or phrase did not describe their work situation, or they marked "?" (cannot decide) indicating that they could not decide if the adjective or phrase described their work situation.

In scoring the JIG (2009), a yes answer was worth 3 points and a no answer worth 0 points each depending on the wording of the item, and the cannot decide answer was worth 1 point. The rationale for this scoring is that, a score of 1 point is close to an unfavorable response (Smith et al., 1969). The possible score range was 0-54. A higher overall score indicates that a participant is more satisfied with his or her job.

Job satisfaction scores for the 57 study participants fell in the middle of the possible score range; the minimum score was 12 and the maximum 33. The median value for job satisfaction scores was 27, and the mean for the group was 25.42 with a

standard deviation of 5.29. The most frequently occurring score was 30, with 15 (26%) of participants scoring at the mode value.

Total Scores for Emotional Intelligence (EI)

Emotional intelligence was measured using the MSCEIT v2.0. This is a 141-item scale that measures four specific EI skills called branches: (1) perceiving emotions, (2) using emotions to facilitate thought, (3) understanding emotions, and (4) managing emotions. The first two branches comprise the experiencing section of EI (EXP), and the second two assess the strategic (REA) handling of emotion section of the test. Each of the four branches is measured with two tasks thereby totaling eight tasks.

Table 1. MSCEIT Scores for Total Emotional Intelligence

	N	Mean	(SD)
EXP	57	94.5690	(15.99)
REA	57	93.5161	(11.04)
EI	57	93.4761	(15.36)

Note. EI = emotional intelligence; EXP = experiencing emotion section of EI; REA = strategic handling of emotion section of EI

The MSCEIT scores were computed by calculating empirical percentiles and then positioning them on a normal curve where the average equaled 100 and the standard deviation 15. All the scores for the branches were obtained in the same way. A total EI score was calculated for the group as show in Table 1. The range of total emotional

intelligence was 61.95 to 127.48 with a mean of 93.47. This indicated that the average score for the group was low average.

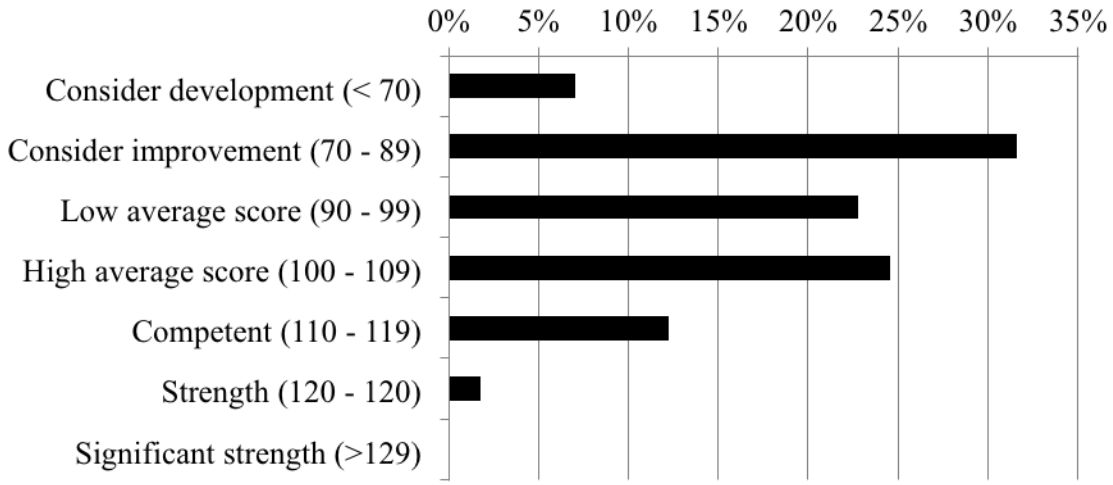

Figure 3. Range of total emotional intelligence scores for study participants as captured by the MSCEIT.

Compared to a normative data set, the sample scored lower than average in EI . Thirty-five participants (61%) scored in the low average or below average ranges as shown in Figure 3. Twenty-two participants (39%) scored in the high average and above average categories. Finding an overall low average EI score for a nursing group is consistent with findings in two other studies (Codier et al., 2009; Codier et al., 2008).

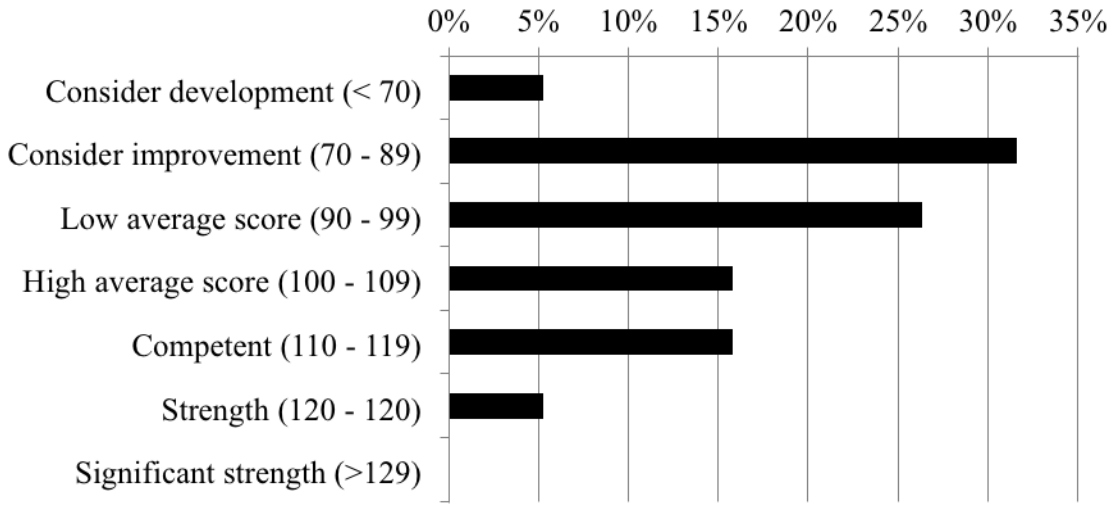

Figure 4. Range of scores for the experiencing emotion branch of emotional intelligence.

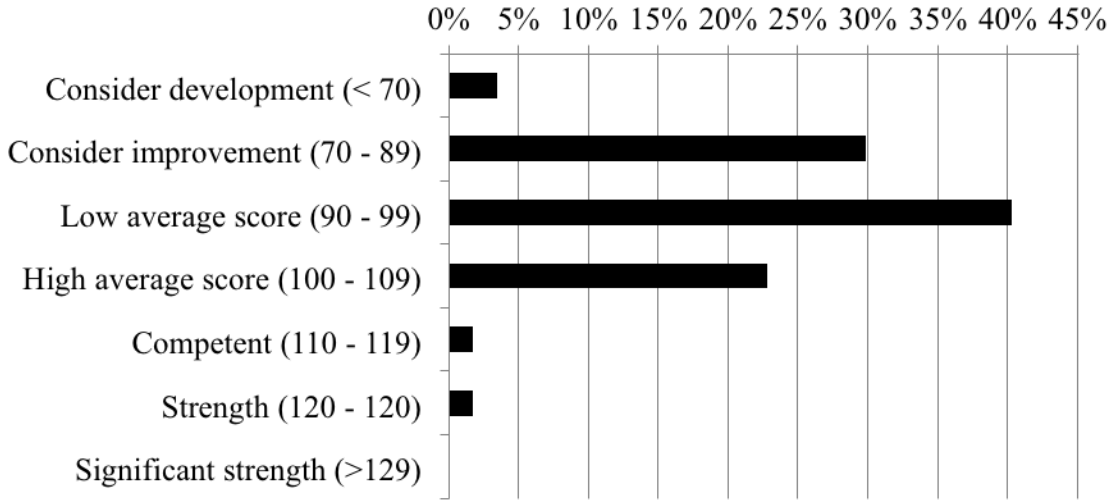

Figure 5. Range of reasoning scores for the strategic use of emotions branch of emotional intelligence.

The total score for the experiencing emotion branch ranged from 61.77 to 123.57 with a mean of 94.57 (*SD* = 15.99). The total score for the strategic use of emotions

branch ranged from 65.21 to 122.24 with a mean of 93.51 (*SD* = 11.04). See Figures 4 and 5.

The demographic question of whether the nurse worked at the bedside (true) or not at the bedside (false) revealed that nurses at the bedside had lower EI than those that did not as shown in Table 2.

Table 2. Emotional Intelligence of Nurses who Work at the Bedside

	Bedside Care	N	M	SD	SEM
EI	True	43	91.65	15.956	2.433
	False	14	99.08	12.196	3.257

Results by Research Question

The above data were subsequently analyzed via inferential statistics to address the study's three research questions. Results for the three questions follow. The study shows that the data collected were insufficient to reject the three null hypotheses. Further analysis with inferential statistics to compare groups was conducted to search for trends in the group of 57 who fully completed the study instruments. A regression analysis was not conducted because no correlation was identified in the data and therefore a search for predictors of the dependent variables was not relevant for this study. Neither was the sample size adequate to permit regression analysis.

Table 3. Summary of Correlations for Job Satisfaction, Emotional Intelligence, and Years of Experience

		JOBSAT	YEARS	EXP	REA	EI
JOBSAT	Pearson Correlation	–	-.085	-.156	-.160	-.173
	Sig. (2-tailed)		.531	.246	.234	.198
YEARS	Pearson Correlation	-.085	–	.102	.235	.169
	Sig. (2-tailed)	.531		.451	.078	.210
EXP	Pearson Correlation	-.156	.102	–	.729**	.934**
	Sig. (2-tailed)	.246	.451		.000	.000
REA	Pearson Correlation	-.160	.235	.729**	–	.920**
	Sig. (2-tailed)	.234	.078	.000		.000
EI	Pearson Correlation	-.173	.169	.934**	.920**	–
	Sig. (2-tailed)	.198	.210	.000	.000	

Note. **Correlation is significant at the 0.01 level (2-tailed). JOBSAT = job satisfaction; YEARS = years of nursing experience; EXP = experiential emotional intelligence; REA = strategic emotional intelligence; EI = emotional intelligence; n = 57

Results of Question 1

Question 1. Is there a significant relationship between emotional intelligence and job satisfaction of nurses that work in a community hospital setting? The null hypothesis (H_0) is that no significant relationship exists between emotional intelligence and nurse job satisfaction. To test this hypothesis two data files, one for the JIG and another for the MSCEIT, were entered into Microsoft Excel file format. These files contained the raw score data for each participant on each test, which were subsequently entered in SPSS. A total score and six sub-scores were computed for each participant from the MSCEIT survey. Only the experiencing emotions and strategic use of emotions scores were relevant to answering the questions. These scores were analyzed. A new variable EI total score was created. The JIG total score was coded for each participant and a total job

satisfaction score was created (JOBSAT). A Pearson *r* analysis between the total EI score and total job satisfaction (JOBSAT) was executed.

As seen in Table 3, the obtained *r* value was -.173 with an associated probability of .198, which was insufficient to reject the null hypothesis.

Results of Question 2

Question 2. Is there a significant relationship between experiential EI and years of nursing experience? The null hypothesis (H_0) is that no significant relationship exists between experiential emotional intelligence and years in nursing. To test this hypothesis, a new variable EI sub score for the EI experience area (EIEXP) was created. The obtained *r* value was .102 with an associated probability of .451, which was insufficient to reject the null hypothesis. See Table 3.

In this group of 57 participants, 42 (74%) have greater than ten years experience practicing nursing. Of these, only 16 participants (38%) scored in the high average or above average categories for EIEXP. This is notable because EI theory proposes that EI increases with age. Although we are measuring years of experience in nursing, it is implied that nurses in this group are older and that years of experience would increase EIEXP. See Table 4.

Table 4. Experiential EI Scores of Nurse Participants by Years of Nursing Experience

	Experiential EI Categories						
Years	Consider Dev.	Consider Imp.	Low Average	High Average	Comp.	Strength	Total
0-5	0	2	2	2	0	0	6
6-10	1	3	2	1	2	0	9
11-15	1	8	3	2	5	2	21
16-20	1	5	8	4	2	1	21
Total	3	18	15	9	9	3	57

Note. Dev. = development; Imp. = improvement; Comp. = competent

Results of Question 3

Question 3. Is there a significant relationship between strategic emotional intelligence and nurse job satisfaction? The null hypothesis (H_0) is that no significant relationship exists between strategic emotional intelligence and nurse job satisfaction. To test this hypothesis, a Pearson *r* analysis between the total strategic EI scores (REA) and total job satisfaction (JOBSAT) was executed to see if strategic EI functioned as a predictor of job satisfaction.

The obtained *r* value was -.160 with an associated probability of .234, which was insufficient to reject the null hypothesis. See Table 3.

Conclusion

In this chapter, descriptive data and inferential statistics were used to report and analyze data. The data analysis of the scores for JOBSAT and EI of 57 participant nurses in a community hospital showed that there were no significant relationship between

emotional intelligence and nurse job satisfaction, no significant relationship between experiential EI and job satisfaction, and no significant relationship between strategic EI and job satisfaction for the group of nurses who participated in the study.

The majority of nurses (74%) participating in the study have worked as a nurse for over 10 or years. Although the nursing group as a whole scored low on EI, the highest scores for EI was found among this group; 32% scored in the high average or higher categories on EI.

An interesting finding in comparing the EI scores of nurses that worked at the bedside with those that did not showed that bedside nurses scored lower in EI than the nurses that worked away from the bedside. Further interpretation of these findings, recommendations, and conclusion to this study will be discussed in Chapter 5.

CHAPTER 5. DISCUSSION, IMPLICATIONS, RECOMMENDATIONS

Introduction

This chapter summarizes the results presented in Chapter 4 and discusses the results for each research question in the context of emotional intelligence and job satisfaction in the nursing field. It also suggests limitations and possibilities for future inquiry. This includes consideration of study results in the context of new literature reviewed during the time the study was conducted.

Summary of Results

There is a lack of understanding of the effects that intrinsic factors, such as emotional intelligence, have on nurse job satisfaction. The purpose of this correlative study was to examine the relationship between emotional intelligence and nurse job satisfaction of a group of nurses that work in a community hospital setting. A desired outcome of the study were results that would be useful to those health care leaders evaluating and implementing strategies to increase nurse job satisfaction, which itself has been linked to nurses having a higher commitment to the organization, a greater intent to staying in the job, and a lower turnover rate (Gajewski et al., 2010). This is important to the well-being of a health care organization and to patient outcomes.

Studies reviewed previously showed that long-career nurses were more satisfied when stress was low, that they exhibited a higher correlation rate between job retention and on-the-job recognition, and that they were able to handle conflict better (Blakely &

Ribiero, 2008; Codier et al., 2009; Codier et al., 2008; Ernst et al., 2004; Letvak & Buck, 2008; Morrison, 2008; Tabak & Orit, 2007). The strategies that nurses use to decrease the emotional labor that impact nurse retention, either in the profession or in a particular job, have not been widely studied. Emotional intelligence may be one of the factors that have an influence on emotional labor, which has been closely correlated to job performance (Zammuner & Galli, 2005).

This study's three research questions were approached quantitatively. Methods were straightforward; participants volunteered to complete an emotional intelligence test and a job satisfaction survey. The data collected were then analyzed and a Pearson's *r* test calculated. The results showed no significant correlation between EI and nurse job satisfaction for the participant group, no significant correlation between years of service and experiencing EI, and no significant correlation between strategic EI and job satisfaction.

The study of emotional intelligence is still new for the nursing profession and during the time this research study was conducted, there were three dissertations completed and two research studies published on job satisfaction and EI. Ball's (2010) dissertation is an example of ongoing inquiry in the profession where three separate manuscripts were completed with the purpose of understanding EI in nursing. Ball finds that there remains a need to define the concept of EI for nursing, that previous studies and methods have not been powerful enough to show significant findings, and that there is less research on EI in nursing than in other professions. Ball also proposes that the meaning of EI for nursing will continue to expand as more studies are completed, and

that the approach most frequently used to measure emotional intelligence has been from the theory of EI as ability. Most studies reviewed by Ball were quantitative and used the MSCEIT tool.

Three dissertations found during an ongoing literature review shed additional light on this study's findings. Austin (2011), Munro (2011), and Sobas-Gonzalez (2013) explored the relationship between nurse leaders' EI and nurse job satisfaction. In all three studies, no significant relationship was found between the leaders' EI and the JOBSAT scores of the staff nurses they led. All studies employed quantitative methods, and Austin (2011) and Sobas-Gonzalez (2011) used the MSCEIT tool to measure EI.

Beyond these dissertation findings, the ongoing literature review found three relevant, published studies, one about physicians and two in nursing. Weng et al. (2011) studied physician job satisfaction, patient satisfaction, and burnout. Here, self-rated EI was associated with higher job satisfaction. They approached emotional intelligence from a trait point of view. Güleryüz, Güney, Aydın, and Aşan (2008) found that emotional intelligence and job satisfaction were strongly correlated and that job satisfaction was a mediator between EI and the commitment of nurses to the organization. This study also approached EI as a trait. The third study was published by Codier, Muneno, Franey, and Matsuura (2010). Esther Codier has published the most on EI and nursing. Codier, like most researchers in nursing a proponent of approaching EI as an ability for its utility in empirical results and validity, was unable to use this approach in an attempt to identify and describe EI attributes in nursing. In a mixed-methods study, Codier et al. (2010) approached EI as a trait to identify attributes of EI in nursing. This

continued literature review provoked reflections and new considerations of the current study's results that will be discussed in the next section.

Discussion of Results

Results for this study are not generalizable to the entire nursing population as it was conducted solely in one community hospital. To address the three proposed questions, results are based on the sample of 57 volunteer nurses that completed all data points of the study.

Research Question 1

Is there a significant relationship between emotional intelligence and job satisfaction of nurses that work in a community hospital setting? Addressing this research question revealed that there is no correlation between EI and nurse satisfaction for this group of nurses. As a group, the EI scores and JOBSAT scores were low. This group as a whole was not satisfied in their jobs and had low average and lower EI scores. An assumption for this study was that high EI would correlate with high JS. Refer to Table 3.

The results show that as a group EI scores were low. Refer again to Figure 3. Note, however, that the higher scores within the group were among the nurses who had more years of experience. This agrees with the theory's statement that EI increases with age (Mayer, et al., 2002). It was assumed that most of these nurses were older since they have been working as nurses longer. This finding agrees with other research studies in

which individuals reporting higher EI scores also reported longer careers in nursing (Codier, et al., 2008; Kooker, et al., 2007).

Research Question 2

Is there a significant relationship between experiential EI and years of nursing experience? This research question revealed that no significant correlation exists between the years of experience in nursing and experiencing EI. Refer again to Table 3. Experiencing (EXP) EI measures an individual's ability to sense an emotion in oneself and in others and the ability to identify emotions such as anger. This study revealed a trend that nurses who scored higher in this area had more than ten years of experience. As previously stated, this result concurs with other studies and was expected. However, as a group they scored low. See Figure 4.

Research Question 3

Is there a significant relationship between strategic emotional intelligence and nurse job satisfaction? This research question revealed that no significant relationship was found between strategic EI (REA) and JOBSAT. Refer to Table 3. Strategic EI measures a person's understanding of the emotion identified and what to do about it, (i.e., how to manage the emotion in oneself and in others). Refer to Figure 5. The assumption that a high score in this area would affect job satisfaction was based on the understanding that the REA would represent how nurses feel about their jobs. Their understanding and management of emotions would mediate their JOBSAT scores.

Additional data mining and analysis detected an unexpected demographic trend outside the scope of the original research questions. Results from those nurses practicing at the bedside were compared with those nurses who did not. The bedside nurses had lower EI scores. Conversely, the non-bedside nurses had higher EI. Refer to Table 2. An area to study in the future could be the differences in EI of nurses that practice at the bedside and those that do not and the characteristics of these two groups.

Discussion of the Conclusions in Relation to Literature in the Field

Results of this study indicated that there is not a correlation between emotional intelligence and job satisfaction for nurses who work in a community hospital setting. Several findings reflected other studies' results. This study's finding that nurses as a group have lower than average EI was also found in Codier et al. (2009) and in Codier et al. (2008). Another finding from this study, nurses with longer careers had higher EI scores, agrees with findings reported in Codier et al. (2008). This information also corroborates the EI studies by the authors of the MSCEIT, namely that EI increases with age (Mayer et al., 2002).

Of interest, the study's longer career group also reported low job satisfaction. Stamps (1997) has done extensive research in this area and reports that job satisfaction is frequently considered an outcome measure for a healthcare organization. In such a case, the organization may want to expand on this finding as it may clarify what is going on in a hospital. Strategies to further identify what causes low job satisfaction scores need to be developed and implemented.

Two constructs often used to study nursing shed light on the study's results: nursing as an art and nursing as a science (Castledine, 2010; Darbyshire, 1999; Mitchell & Cody, 2002). Approaching nursing as a science connotes knowledge-generation through scientific study that is then expressed by the way it is practiced (Mitchell & Cody, 2002). This construct is reflected in the aforementioned literature as part of an ongoing review of dissertations and published articles. These studies showed that when EI was considered a trait, results showed positive correlations with job satisfaction. Perhaps studying EI both as a trait and as an ability in nursing would best reflect nursing as art and nursing as science. Petrides and Furnham (2001) suggested that how EI is measured in an operational context has implications for the study of nursing, and therefore potentially for whether nursing is seen as science or as art. One outcome of this study may be that the construct of EI as ability is not appropriate for correlation with job satisfaction. Likewise, van der Zee and Wabeke (2004) propose that EI as trait can predict behaviors of EI and other important criteria in a more focused way. Codier et al. (2010) were not able to use the EI as ability tool to identify attributes of EI in nursing. This begs the question whether the study of emotional labor and intuition in nursing, since they are intrinsic, should be measured with a self-reporting tool. Consequently, the more scientific aspects of nursing practice such as performance outcomes and career advancement could be approached empirically. This also reflects a research divide in nursing literature; qualitative and quantitative approaches to nursing have distinct bodies of work.

Limitations

Although this investigation looked at the relationship between emotional intelligence and job satisfaction in the nursing field, it was unable to answer the questions posed. Results from this study suggest that there is no correlation between emotional intelligence and nurse job satisfaction. Although the groups' scores were low in both, they did not statistically correlate. Although there was a small positive trend between the participants that scored high in EI and those that had higher scores in JS, a larger sample may have better clarified any potential relationship.

The study was limited by its use of a convenience sample, yet care had to be taken to prevent any conflict of interest. It would have helped if all the participants had had the chance to complete the study all at once and in one sitting. No one place was available that had multiple computers to use. Nurses used computers in their work areas or used their personal computers. This proved to be a limitation and subsequently the recruiting method had to be altered to allow participants to complete the study on paper. This correspondingly caused delays in receiving the data and subsequently processing them through the website. The MSCEIT tool is long with 141 questions, and although varied in the types of questions and activities to be completed, this may have been the cause for abandonment of the study by some participants. Anecdotally, the participants expressed that having to stop and restart the online survey, owing to other demands on their time, proved to be difficult. They had to go back and re-enter the website to find where they had left off whereas those who used the written form were able to quickly find where

they had left off. The online survey, however, is the most utilized tool in reviewed quantitative studies.

Large changes occurring in the organization may have distracted nurse-participants. The community hospital migrated to a wholly new electronic medical records system during the study, a circumstance not expected at the beginning of the research project. It was a decision taken by new leadership in the organization and recruiting became a long process of going to meetings and posting the flyers to recruit willing participants.

Multiple methods were employed to recruit the maximum number possible of participants. The researcher attended nursing research, education, clinical practice, and nursing leadership meetings at which she introduced the study and distributed flyers. The researcher distributed study flyers in cafeteria during times when high volumes of nurses visited for meals. The researcher also met with individual nurse managers of various units and distributed flyers at their staff meetings. Additionally, the researcher organized and maintained a booth during nurses' week; she distributed flyers to nurses attending the programs during this week. Finally, during the trainings conducted for the new electronic medical records, the researcher was given time to present again the research study and distribute flyers to nurse-attendees.

The researcher was unable to seek feedback on the on-site perception of the study methodology (e.g., ease of use of the online survey instrument versus hardcopy instrument in the hospital setting) as she wished to avoid any perception of coercion.

Although the decision helped avoid the possibility of conflict of interest, it introduced some unanticipated operational hiccups.

Delimitations

Collecting information about the specific community hospital environment was intentionally left out due to time constraints and the potential for increasing the length and/or number of survey tools used. Though this was a purposeful delimitation, questioning which aspects of an environment contribute to nurse satisfaction is widely studied. In view of the results of this study, an organizational assessment may have helped in identifying what the nurses reported as positive or negative about their work environment. Another delimitation was not asking nurses for their ages. This was intentional to avoid the nurses feeling they could be identified. Nurses' aging is a concern for health care and widely referenced in literature. What contributions older nurses make in terms of the relationships they have in the workplace needs to be further studied.

Summary

The results from the study's three research questions are valuable to academia and hospital organizations because strategies can be developed to engage the nursing workforce or educate nursing students about emotional intelligence, including the importance of developing relationships in the work place. In academia, results suggest the importance of studying EI as both a trait and as an ability.

Recent studies show some positive results in correlating EI with behavioral dispositions. Identifying important attributes of EI in nursing, how these are developed, and their influence on nursing practice would add to the knowledge of emotional intelligence in nursing. Job satisfaction may encompass too many aspects to study as a whole. Perhaps studying job engagement and what it entails in nursing can be more beneficial than studying the larger job satisfaction. Studying those behaviors that nurses who report job satisfaction exhibit and any correlations with EI may help develop tools to better assess the workforce and students.

This study's results are valuable to the research site because they show that a group of nurses is not satisfied in the organization, and this can be a predictor of nurses leaving the organization. Those nurses having low EI are important to the scholar practitioner. The low EI scores may be indicative of other challenges in the organization in terms of behaviors and relationships.

Outcomes from this study at the research site included increased awareness that research was being conducted by nurses and for nurses and that studying emotional intelligence and job satisfaction may benefit the organization. Strategies to improve job satisfaction need to be explored for this organization because results suggest that overall the group is not satisfied. Such strategies might include collaboration with the human resources department to increase conversations about educating nurses about emotional intelligence. Seeking ways to increase EI in nurses could be a goal for the nursing department. EI is about how emotions are managed in oneself and in others, and in the business of health care, this is very important. Nurses are the largest single portion of the

workforce. As such, they have a big role to play in outcomes related to relationships and patient care.

Recommendations for Future Study

The study's findings suggest four categories of recommendations: recommendations from analyzed data, research design and methodology, delimitations, and issues relevant to the research problem.

Results from our analysis suggest that nursing as a profession can benefit from increased knowledge of emotional intelligence since the profession reports low EI. Studies comparing EI scores before and after focused EI education strategies have been implemented could benefit nursing as a profession. Incorporating study of emotional intelligence in nursing programs could begin early career development of EI, and health care organizations could offer ongoing education to improve the EI of their current workforce. EI has been positively correlated with performance and as a characteristic of nurses reporting longer careers. The study data also show a possible trend of nurses who practice at the bedside having higher job satisfaction than those that do not. Further studies should be conducted here.

Methodologically, recommendations from this study include the importance of a high number of participants completing the survey tools. Moreover, future researchers employing the MSCEIT should consider the possible benefit of completing it in one sitting with participants having time to complete the surveys without interruptions. This is best if done without the constraints of using a convenience sample where there could

be conflict of interest or difficulty keeping participant anonymity. Collecting more demographic information would have helped inform this study about the participants. Data points such as age, area of nursing practice, and years of service in the organization would have provided greater breadth in potential data analysis.

Recommendations for future investigation that is not supported by the data but may be potentially relevant to the research study include teasing apart the various components of job satisfaction such as employee engagement. The whole construct of multidimensional job satisfaction may be too broad for direct comparison. Perhaps this is why the study of EI as a trait, also a multidimensional construct, shows positive relationships with job satisfaction.

In summary, questions for further study include

1. Is there an increase in emotional intelligence scores for nurses after focused education on improving EI competencies (i.e., a before and after scores comparison)?
2. How does the research on job satisfaction and EI as ability theory differ from the research of job satisfaction and EI as trait theory?
3. Is there a difference in nurse job satisfaction between nurses that practice at the bedside and those that do not?
4. Which emotional intelligence attributes of nurses working in a hospital are most associated with job satisfaction?
5. Does the level of employee engagement have a relationship to EI?

Conclusions

There is still much to be studied in the area of emotional intelligence and how intrinsic factors affect the profession of nursing. Although recent research has not

revealed a correlation between EI and job satisfaction in the areas of nursing staff and nursing leadership, qualitative studies and studies that consider EI as a trait report findings that may direct nursing researchers to explore EI in terms of behaviors and attributes. Nonetheless, emotional intelligence continues to generate many questions on how it affects people and what they do. It is also important to uncover what will help keep nurses in the workforce at a time in history when they will be much needed. Any pursuit will not be in vain as long as questions are asked and studies conducted to produce new knowledge. In the current health care environment, patient care outcomes are a focus of healthcare organizations as well as have an impact on their reimbursement. Employees all play a role in these outcomes, but as nurses are the largest group employed in hospitals, they have a major role to play. What we learn about this group is important as it has a direct impact on patient care and on outcomes that are now at the center stage of health care. Exploration in this field has been enriching to a scholar practitioner who has a passion to influence the practice of nursing because caring for human beings at their most vulnerable times in life is immeasurably important.

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