Essential Emotional-Social Intelligence Skills for Nursing

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April Leigh Minster

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We hereby certify that this dissertation, submitted by April Leigh Minster, conforms to acceptable standards and fully fulfills the dissertation requirements for the degree of Doctor in Education from Bryan College of Health Sciences.

Dr. Julie Skrabal, EdD, RN, CNE
Chair

_____

Dr. Marcia Kube, EdD, RN, CNE
Committee member

_____

Dr. June Smith, Ph.D., RN
Committee member

_____

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Abstract

There is research to support that emotional-social intelligence skills positively impact academic and practice performance outcomes in nursing. Based on the literature, there was a need to explore the most important emotional-social intelligence skills used in nursing practice and how those skills are developed.

The purpose of this grounded theory study was to understand the emotional-social intelligence skills used and developed in nursing practice. Participants were chosen through purposeful sampling. Semi-structured interviews were conducted and an emotional-social intelligence skills checklist based on the Bar-On Model of Emotional-Social Intelligence (2006) was used. The emerging Minster Five-Factor Model of Emotional-Social Intelligence for Nursing was developed based on the data collected.

This study revealed four essential skills that registered nurses use in practice: empathy, stress tolerance, flexibility, and problem solving. Self-awareness was determined to be a key skill needed for registered nurses to develop emotional-social intelligence skills. This study found that emotional-social intelligence can be learned and developed. Mentors, role models, and coaches within the context of the acute care setting assisted in the development of emotional-social intelligence. Engagement was an important factor for development to occur.

This study recommends including emotional-social intelligence skills in nursing curriculum. Further studies are recommended to validate the essential emotional-social intelligence skills for nursing.

Keywords: emotional-social intelligence, emotional intelligence, nursing education, nursing

Essential Emotional-Social Intelligence Skills for Nursing

CHAPTER I: INTRODUCTION

Purpose of the Study

The purpose of this grounded theory study was to understand the emotional-social intelligence skills used in nursing practice and how these skills are developed. The objective was to develop a theoretical understanding of how registered nurses develop and use emotional-social intelligence skills in nursing practice. Findings from this study generated new knowledge of emotional-social intelligence skills in nursing practice that can be used for curriculum development in nursing education.

Background and Rationale

Emotional intelligence is a developing concept with limited empirical evidence in nursing (Akerjordet & Severinsson, 2007, 2010; Parsa Yekta & Abdolrahimi, 2015). Moderately studied in nursing education since 2013, original research in emotional intelligence dates back to the early 1990s. Despite the present focus on emotional intelligence research, an emotional-social intelligence model that specifically addresses the needs of nursing could not be located. There is growing evidence to support the relationship between emotional intelligence and workplace performance. Furthermore, nursing education research has yielded positive correlations between emotional intelligence and educational outcomes (Michelangelo, 2015).

In nursing research, the term emotional intelligence is used consistently to describe an emotional awareness of one's self and others. Based on the theoretical work of Bar-On (2006), the construct of emotional intelligence is referred to as emotional-social intelligence. Emotional-social intelligence "is a cross-section of interrelated emotional and social competencies, skills and facilitators that determine how effectively we

understand and express ourselves, understand others and relate with them, and cope with daily demands" (Bar-On, 2006, p. 14). The Bar-On Model of Emotional-Social Intelligence includes personality characteristics conducive to successful human behavior categorized by five meta-factors: intrapersonal skills, interpersonal skills, adaptability, stress management, and general mood. These traits and abilities align with the attitudes and values commonly cited in professional nursing standards and guidelines. Furthermore, emotional-social intelligence factors accurately represent the transferable skills expected and used by registered nurses. Examples include effective problem solving, empathy, positive self-regard, stress tolerance, flexibility, and assertiveness (Bar-On, 2006).

There is evidence to support that emotional intelligence significantly impacts nursing workplace outcomes and role performance (Codier & Codier, 2017; Michelangelo, 2015; Schub & Smith, 2017; Fujino et al., 2015). In a study of 42 nurses, Harper and Jones-Schenk (2012) sought to determine the emotional intelligence profile of successful staff nurses and they found that successful staff nurses had average to high levels of emotional intelligence. Success was defined using the Emotional Quotient Inventory (EQ-i) factors that include, but are not limited to, emotional self-awareness, assertiveness, empathy, flexibility, and problem solving. In addition, an evaluation of the relationship between high levels of emotional intelligence among bedside nurses and patient care yielded improved outcomes. Adams and Iseler (2014) reported significantly lower rates of infection, fewer patients requiring evaluation for pressure ulcers, and lower rates of injury with patient falls.

There is also an association between high levels of emotional intelligence and strong conflict resolution skills, more satisfied patients, and higher retention of nursing

staff (Basogul & Ozgur, 2016; Clancy, 2014). In a study of 122 nurses working in four South African hospitals, Gorgens-Ekermans and Brand (2012) reported a correlation between higher emotional intelligence and lower stress and burnout rates. Michelangelo (2015) reported "100% positive results for the impact of emotional intelligence and its effectiveness in enhancing skills necessary for nurses and nursing students" (p. 121).

Consistent with findings from practice, there is accumulating evidence and support for emotional intelligence in nursing education (Akerjordet & Severinsson, 2007; Michelangelo, 2015). Research in nursing education indicates emotional intelligence can be measured and learned. For example, there is evidence to suggest that emotional intelligence measures increase over the duration of an academic nursing program (Benson, Ploeg, & Brown, 2010; Kaya, Şenyuva, & Bodur, 2017; Sharon & Grinberg, 2017). Additionally, there is evidence to support emotional intelligence, as a part of the nursing curriculum, is positively correlated with academic outcomes such as grades, success in nursing studies, and improved retention (Codier & Odell, 2014; Sharon & Grinberg, 2017).

Current professional nursing standards and guidelines used in curriculum include attitudes and values commensurate with emotional-social intelligence skills. Commonly cited in undergraduate nursing education programs are professional standards such as: Quality and Safety Education for Nurses (QSEN) Competencies (2007), The Essentials of Baccalaureate Education for Professional Nursing Practice (The American Association of Colleges of Nursing [AACN], 2008), and the American Nurses Association's Nursing Standards and Scope of Practice (American Nurses Association [ANA], 2015). Each of these ubiquitous publications cite skills that align with what is commonly referred to as emotional intelligence.

Current standards include an emphasis on self-awareness; treating colleagues and patients with respect, trust, and dignity; fostering collaboration; and continuous development of effective communication and conflict resolution skills (ANA, 2015; QSEN, 2007). The Essentials of Baccalaureate Education for Professional Nursing Practice (2008) define Essential VIII: Professionalism and Professional Values as encompassing "the nurse's empathy for, connection to, and being with the patient, as well as the ability to translate these affective characteristics" (p. 26). These characteristics are congruent with emotional-social intelligence skills such as self-awareness, interpersonal relationships, flexibility, empathy, and problem solving.

The topic of emotional-social intelligence skills, reflective of the holistic expectations and demands of the registered nurse, is an important area to explore in undergraduate nursing education. Based on the literature, it appears that deliberate and guided inclusion of emotional-social intelligence in the nursing curriculum may provide students an opportunity for professional growth (Judge, Opsahl, & Robinson, 2018; Waite & McKinney, 2015). Benner, Sutphen, Leonard, and Day (2010) define professional formation in nursing as "changes in identity and self-understanding that occur in moving from being a lay person to a professional" and state that these changes are desirable in nursing education (p. 86). Inclusion of emotional-social intelligence in the curriculum may provide opportunities to learn and develop skills in nursing that could improve patient safety and enhance clinical decision making.

Theoretical Model

The Bar-On Model of Emotional-Social Intelligence was used as the guiding theoretical framework for this study (Bar-On, 2006). The Bar-On model has been operationalized by the Emotional Quotient Inventory (EQ-i), a self-report measure of

emotional-social intelligence. The EQ-i identifies the competencies, skills, and facilitators conducive to success rather than claim to predict one's success (Bar-On, 2006). A theoretical lens was needed to provide a framework for exploring the intricacy and complexity of emotional-social intelligence in nursing based on a model that has been operationalized. Furthermore, emotional intelligence nursing research includes personality traits and related characteristics such as interpersonal relationships, self-awareness, and problem solving that are cited in professional nursing standards and the Bar-On model. This model accounts for both cognitive abilities and other personality characteristics simultaneously as is necessary for nursing practice.

The major areas of skills and related skills assessed by the Bar-On model are organized by five meta-factors and 15 factors (see Table 1).

Table 1

The Five Meta-Factors and 15 Factors of the Bar-On Model

Intrapersonal Skills	Interpersonal Skills	Adaptability Skills	Stress-Management Skills	General Mood
Self-regard	Empathy	Problem solving	Stress tolerance	Happiness
Emotional self-awareness	Social-responsibility	Reality-testing	Impulse control	Optimism
Assertiveness	Interpersonal relationships	Flexibility	-	-
Independence	-	-	-	-
Self-Actualization	-	-	-	-

The five meta-factors identified as important to life success are: intrapersonal, interpersonal, adaptability, stress management, and general mood (Bar-On, 2006). These areas are further subdivided into 15 emotional-social intelligence factors and are defined by Bar-On (2006) (see Table 2).

Table 2

The 15 Factors of the Bar-On Model with Definitions[1]

Factor	Definition
Self-Regard	ability to look inward and accurately perceive, understand and accept ourselves
Emotional Self-Awareness	ability to be aware of, identify and understand emotions
Assertiveness / Emotional Self-Expression	ability to effectively and constructively express feelings and one's self in general
Independence	ability to be self-reliant and free of emotional dependency on others
Empathy	ability to be aware of and understand how others feel
Social Responsibility	ability to identify with social groups, among friends, at work and in the community, and to cooperate with others in a constructive and contributing manner
Interpersonal Relationship	ability to establish and maintain mutually satisfying relationships and relate well with others
Stress Tolerance	ability to effectively and constructively manage emotions
Impulse Control	ability to effectively and constructively control emotions
Reality Testing	ability to objectively validate our feelings and thinking with eternal reality
Flexibility	ability to adapt and adjust our feelings, thinking and behavior to new situations and conditions
Problem-Solving	ability to effectively solve problems of a personal and interpersonal nature
Self-Actualization	ability to set personal goals and the drive to achieve them in order to actualize our potential
Optimism	ability to maintain a positive and hopeful attitude toward life even in the face of adversity
Happiness / Well-Being	ability to feel content with one's self, others and life in general

The intrapersonal skills refer to self-awareness and self-expression, whereas the interpersonal skills refer to social awareness and social relationships. Stress management skills assess emotional management and regulation, specifically one's ability to

[1] From "The Bar-On model of emotional-social intelligence (ESI)," by Bar-On, R., 2006, Psicothema, 18, p. 23. Copyright 2019 by Consortium for Research on Emotional Intelligence in Organizations (www.eiconsortium.org). Reprinted with permission. See Appendix A.

effectively and constructively manage and control emotions. Adaptability skills measure

the ability to problem-solve and manage change. Self-motivation is related to general

mood or the capacity to be optimistic and content with life in general.

Emotional-social intelligence includes awareness of self, others, situations, and

the governing social dynamics within one's social group. At the core of emotional-social

intelligence is the development of self-awareness and other-awareness. Knowledge

derived from within the context of nursing practice is the most effective in preparing new

nurses for practice (Akerjordet & Severinsson, 2007; Freshwater & Stickley, 2004;

Huston et al., 2017; Numminen et al., 2014). Including emotional development processes

in nursing education is favorable (Akerjordet & Severinsson, 2007; Codier & Codier,

2017; Freshwater & Stickley, 2004). Furthermore, the literature supports a need to

understand emotional-social intelligence from the perspective of the nurse in practice.

The development of understanding from the context of the workplace will provide

practical insight for nursing curriculum development.

Research Questions

There is evidence to support the need for emotional-social intelligence skills in

nursing; however, the skills essential for nursing practice and education are unclear. The

purpose of this grounded theory study was to understand the emotional-social intelligence

skills needed for nursing practice. Frontline nurse managers were the population of

interest based on their ability to describe the emotional-social intelligence skills

developed and used by registered nurses. The frontline nurse managers supervise

performance and assess success in the registered nurses' role performance. This study

explored findings in practice that may be used to support emotional-social intelligence

curriculum in undergraduate nursing education.

The research questions for this qualitative, grounded theory research study were:

1. What are the essential emotional-social intelligence skills for role performance in practicing registered nurses?

2. How are emotional-social intelligence skills developed in nursing?

Assumptions

The researcher was an active participant and co-constructor of new knowledge in the grounded theory research methods used in this study (Corbin & Strauss, 2008). Assumptions of relevance to this study were: 1. Emotional-social intelligence skills are used by registered nurses; 2. The participants in this study answered interview questions openly and honestly; and 3. Responses received from the participating frontline nurse managers accurately reflected their observations and experiences.

Additionally, it was assumed that emotional-social intelligence skills are innate in each individual and, therefore, the nursing student and practicing registered nurse. The level of skill, however, would vary based on a person's life experiences, socialization, community, and culture. The development from the nurse's baseline emotional-social intelligence level occurs by way of personal and professional experiences, professional socialization, and professional identity formation, and through educational interventions. The term professional socialization is used to describe the process by which registered nurses gain knowledge, skills, and attitudes needed for role performance. Professional identity formation extends beyond socialization to include personal and professional internalization of perspectives and core values fundamental to the art and science of nursing (National League for Nursing, 2010).

Delimitations

This study was delimited to a purposive, convenience sample. The sample was focused on the context and situational circumstances in which participants had knowledge of what emotional-social intelligence skills registered nurses use and how they are developed in the acute care practice setting. Additionally, the sample was restricted to southeast Nebraska. There are additional opportunities to further investigate emotional-social intelligence skills from the perspective and understanding of registered nurses themselves. Those interviewed in this study consisted of frontline nurse managers to eliminate the potential for self-bias.

Definition of Terms

The following operational definitions were used in this research study:

Acute Care Setting. Care provided in a setting equipped to treat short-term, unexpected, or urgent episodes of injury and illness, or post-surgical recovery. Acute care requires a stay in a hospital and this includes medical-surgical general care areas. Settings exclude specialized care such as emergency department, pediatrics, labor and delivery, postpartum, and newborn care.

Emotional-Social Intelligence. "A cross-section of interrelated emotional and social competencies, skills and facilitators that determine how effectively we understand and express ourselves, understand others and relate with them, and cope with daily demands" (Bar-On, 2006, p. 14).

Frontline Nurse Manager. A manager of a patient care area whose duties include nursing work and supervision of performance responsibilities, with a minimum of three years' experience in their current position.

Nursing Practice. "Nursing is the protection, promotion, and optimization of health and abilities; prevention of illness and injury; facilitation of healing; alleviation of suffering through the diagnosis and treatment of human response; and advocacy in the care of individuals, families, groups, communities, and populations" (American Nurses Association, 2015, p. 1).

Registered Nurse. An individual who has been educated and maintains active licensure by a state board of nursing to provide patient care (American Nurses Association, 2015; National Council of State Boards of Nursing, 2019).

Role Performance. The ability to perform job functions.

Rural Hospital. A hospital located in settlements characterized by a low population density and a bed size of one to 99 beds.

Urban Hospital. A hospital located within a metropolitan area within a city or town, with a high population density and a bed size of more than 100 beds.

Significance of the Study

This study adds to the body of knowledge by extending the need for emotional-social intelligence in nursing. Building on an existing framework and within the context of nursing, a new model was established to describe and explain the essential factors and development of emotional-social intelligence in nursing. As a newer concept in nursing, the topic of emotional-social intelligence lacked clarity. Therefore, to develop a theoretical understanding for emotional-social intelligence skills in nursing was a significant goal.

Collective evidence indicates improved performance outcomes for those nurses and nursing students with higher emotional intelligence. The Minster Five-Factor Model of Emotional-Social Intelligence for Nursing identified five essential emotional-social

intelligence skills for nursing: empathy, stress tolerance, clinical decision making, flexibility, and self-awareness. The study contributes to evidence supporting the role and importance of emotional-social intelligence skills for successful nursing role performance. This study established an understanding of the day-to-day use and development of emotional-social intelligence skills in acute care nursing practice. The foundational knowledge generated and presented in the Minster Five-Factor Model of Emotional-Social Intelligence for Nursing supports the need to further define the affective domain for nursing practice and to strengthen undergraduate nursing curriculum.

CHAPTER II: LITERATURE REVIEW

Emotional intelligence has been considerably studied since the early 1990s. Despite the extensive research conducted, the concept of emotional intelligence is not clearly understood in nursing education. The purpose of this literature review is to provide an overview of the research in the field of emotional intelligence and undergraduate nursing education. Operational models, theoretical constructs, and relevant measurements are described. Findings applicable to nursing education are reported. Correlations between emotional intelligence and nursing education, student outcomes, and related curriculum implications are presented. A brief review of findings from higher education and nursing practice are presented.

Historical Context

The concept of emotional intelligence is based on the social intelligence work of Thorndike. The concept of social intelligence was introduced by Thorndike (1919), who developed early theories and definitions that considered the motivations and the emotions of others (Cherniss, 2000; Parsa Yekta & Abdolrahimi, 2015; Roberts, MacCann, Matthews, & Zeidner, 2010; Siegling, Saklofske, & Petrides, 2014). Social intelligence was first described as an ability to understand and manage human relations in a sensible manner (Thorndike, 1919). In the 1950s, Wechsler continued to study intelligence and included "non-intellectual" elements such as motivation (Cherniss, 2000). In 1984, Gardner expanded on the idea of other types of intelligence, including the personal intelligences: intrapersonal and interpersonal. These theorists paved the way for emotional intelligence to be seriously considered by the scientific community.

The work of Howard Gardner (2011) further suggested that traditional intelligence based on understanding and testing was limited. Previously, intelligence had

been characterized as a purely cognitive measure separate from emotion. The personal intelligence work of Gardner was significant for the development of emotional and social intelligence as it is understood today. Gardner described intrapersonal and interpersonal abilities as forms of information processing (Siegling et al., 2014).

Following the work of William James and Sigmund Freud, Gardner (2011) deemed self-growth and coping within one's community as important human capacities. Gardner (2011) ascribed to James's intrapersonal notion that "the purpose of self-knowledge was less to promote one's personal agenda and more to ensure the smooth functioning of the wider community" (p. 253). On the contrary, "interpersonal knowledge permits a skilled adult to read the intentions and desires – even when these have been hidden – of many other individuals and, potentially, to act upon this knowledge" (Gardner, 2011, p. 253).

The cognitive work of Gardner on the personal forms of knowledge is an important consideration for nursing and emotional intelligence. The profession of nursing is a unique culture with "its own means for interpreting experiences" (Gardner, 2011, p. 254). Additionally, the role of the nurse requires strong relational skills consistent with personal intelligences. Gardner contends, at least in the traditional sense of culture, that personal intelligence varies and is distinctive, for a given society. Thus, it's plausible that nursing has a unique set of personal intelligence skills and meanings.

Emotional intelligence as a theory and framework was first formally presented by Peter Salovey and John Mayer in 1990. The simultaneous work of Rueven Bar-On, which began in the mid-1980s, combined emotional and social intelligence into a single mixed-model of emotional intelligence. Goleman's (1995) work popularized emotional intelligence outside the scientific community.

Emotional Intelligence Models

Emotional intelligence research is novel in comparison to cognitive intelligence

quotient research. Several models have been introduced and revised over the last 30 years

based on an expanded understanding of emotional intelligence. The frameworks of

emotional intelligence have been categorized as an ability model or mixed model. The

ability model of emotional intelligence focuses on cognitive processing and the adaptive

use of emotions. The mixed model conceptualizes emotional intelligence as a

combination of abilities and traits. Personality traits encompass self-perceptions used to

recognize, process, and use emotional information (Aradilla-Herrero & Tomas-Sabado,

2011). The common emotional intelligence models cited in the literature were authored

by Bar-On (2006), Goleman (1995), and Salovey and Mayer (1990, 1997) (see Table 3).

Table 3

Comparison of the Common Emotional Intelligence Models

Author	Salovey and Mayer	Goleman	Bar-On
Model Type	Ability	Mixed	Mixed
Definition	"ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth" (Salovey, 1997, p. 35)	"self-control, zeal and persistence, and the ability to motivate oneself" (Goleman, 1995, p. xxii)	"a cross-section of interrelated emotional and social competencies, skills and facilitators that determine how effectively we understand and express ourselves, understand others and relate with them, and cope with daily demands" (Bar-On, 2006, p. 14)

Major Skill Areas	Reflective regulation of emotions to promote emotional and intellectual growth	Knowing one's emotions	Intrapersonal: self-awareness and self-expression
	Understanding and analyzing emotions	Managing emotions	Interpersonal: social awareness and interpersonal relationships
	Employing emotional knowledge	Motivating oneself	
		Recognizing emotions in others	Stress management: emotional management and regulation
	Emotional facilitation of thinking	Handling relationships	Adaptability: change management
	Perception, appraisal, and expression of emotion		General mood: self-motivation

Emotional intelligence was originally conceptualized by Peter Salovey and John Mayer (1990) as an ability, exclusive of personality traits. Emotional intelligence was first defined as "the ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (Salovey & Mayer, 1990, p. 35). The ability model focuses on behavioral dispositions and self-reported abilities. In 1997, a revised definition was proposed to include thinking about feelings and the ability to accurately perceive and regulate emotions (Salovey, 1997).

In contrast, Goleman's (1995) concept of a blend of emotional abilities and personality traits is considered a mixed model of emotional intelligence. Empirical research has primarily used a mixed model of emotional intelligence as popularized by the work of Goleman (1995), which focused on the field of leadership and management. Goleman (1995) proposed a broader, less scientific definition of emotional intelligence

which included "self-control, zeal and persistence, and the ability to motivate oneself" (Goleman, 1995, p. xxii).

Similarly, the Bar-On (2006) model of emotional-social intelligence includes personality characteristics attributed to life successes: intrapersonal skills, interpersonal skills, adaptability, stress management, and general mood. The theoretical foundation for the Bar-On model is based on Darwin's emotional expression for adaptation, Thorndike's social intelligence, and Weschler's work on the impact of non-cognitive factors on intelligence (Bar-On, 2006). Bar-On (2006) concluded that there was difficulty in separating emotional intelligence from social intelligence based on existing evidence. As suggested by Bar-On (2006), the intrapersonal (emotional) and interpersonal (social) competencies, skills, and facilitators are most accurately referred to as "emotional-social intelligence." This mixed model defines emotional-social intelligence as "a cross-section of interrelated emotional and social competencies, skills and facilitators that determine how effectively we understand and express ourselves, understand others and relate with them, and cope with daily demands" (Bar-On, 2006, p. 14).

According to Bar-On (2006), "being emotionally and socially intelligent means to effectively manage personal, social and environmental change by realistically and flexibly coping with the immediate situation, solving problems and making decisions" (p. 4). Studying assorted variables together, as in the Bar-On model, prevents the potential of a false claim for a predictive single entity.

Emotional intelligence research in higher education, including nursing, employs both models and multiple measurements. Critics cite the inconsistent use of emotional intelligence models in research as a weakness; however, it should not come as a surprise given it is a newer concept (Akerjordet & Severinsson, 2010). The models are

comparable in self-awareness and emotional regulation skills; however, further defining characteristics and attainment of skills provide unique identifiers. The two main models and corresponding frameworks cited in recent research, ability and mixed, are described in the following sections.

        Ability model of emotional intelligence. The ability model of emotional intelligence is a cognitive processing model. The focus is on the adaptive use of emotions to validly reason about information (Aradilla-Herrero & Tomas-Sabado, 2011; Salovey, 1997). Salovey and Mayer (1990) loosely describe emotional intelligence as a subset of Gardner's personal intelligences. Introduced in 1997, the four-branch model of emotional intelligence describes emotional information processing human capacities using four categories: emotional perception, emotional facilitation of thought, emotional understanding, and emotional regulation (Aradilla-Herrero & Tomas-Sabado, 2011; Salovey, 1997). Based on emergent research, a revised model was proposed in 2016 and included additional areas of problem solving abilities in each branch (Mayer, Caruso, & Salovey, 2016). The model is hierarchical and arranged according to complexity with prerequisite skills to grow within and between branches.

        The first branch is foundational and includes perception, appraisal, and expression of emotion. The focus is on the individual's ability to identify emotions in self and others. The appraisal of emotion is higher level and concerns the accuracy of expression in self and others. The second branch is emotional facilitation of thinking, which is described as intellectual processing assisted by emotional events (Salovey, 1997). This extends to one's consideration of multiple perspectives and acknowledgement of the impact mood can have on abilities of reasoning. Branch three is understanding and analyzing emotions; which concerns the ability to use emotional knowledge to understand emotions, including

those that occur in complex and contradictory circumstances (Salovey, 1997). The highest branch is reflective regulation of emotions to promote emotional and intellectual growth. The requirement for this level is an openness to feelings, regardless of the emotion, one is able to engage, reflectively monitor, and manage emotional reactions (Salovey, 1997).

According to Roberts, MacCann, Matthews, and Zeidner (2010), the ability model is the most scientifically accepted conceptual framework of emotional intelligence. This model resembles other standard forms of intelligence and therefore is more easily recognized. The ability model of emotional intelligence is better theoretically defined than the mixed model.

Mixed model of emotional intelligence. The mixed model of emotional intelligence encompasses personality traits, such as motivational characteristics, with less focus on emotion and related cognitive processing information (Goleman, 1995; Roberts et al., 2010; Salovey, 1997). As such, this model includes non-cognitive skills, capabilities, and competencies such as empathy, optimism, and general happiness (Bar-On, 2006; Roberts et al., 2010). The model includes a number of measured diverse qualities and traits, rather than measuring emotional intelligence as a single unit.

Goleman's (1995) mixed model describes five major areas of skills: knowing one's emotions, managing emotions, motivating oneself, recognizing emotions in others (empathy), and handling relationships (Mayer, Salovey, & Caruso, 2000). Furthermore, Goleman (1995) offered specific attributes of social competence that extend beyond emotional intelligence and are likened to one's character, such as empathy. The difference between the Goleman and Bar-On mixed models is the predictive outcome claims made by Goleman (Mayer et al., 2000).

The Bar-On mixed model of emotional intelligence combines cognitive abilities and personality characteristics conducive to life success (Mayer et al., 2000). The model includes the following major areas of skill: intrapersonal, interpersonal, adaptability scales, stress-management scales, and general mood (Bar-On, 2006). Each of these areas is further defined by 15 factors comprised of competencies, skills, and facilitators (See Table 1 and Table 2). As cited by Mayer, Salovey, and Caruso (2000), Bar-On provided an expanded view of emotional intelligence and defined it as "an array of non-cognitive capabilities, competencies, and skills that influence one's ability to succeed in coping with environmental demands and pressures" (p.14).

Measurements of Emotional Intelligence

Measurements of emotional intelligence are categorized as single measures of intelligence or ability and instruments that measure a combination of abilities and personality traits. Therefore, measures of emotional intelligence are typically consistent with the theoretical framework or model: ability or mixed. Performance measures are used to measure the ability construct. On the contrary, self-report scales have been used in conjunction with other measurements of related personality traits or ability measures within the mixed-model framework.

The literature review found that 12 different measurements were used to score emotional intelligence. The most commonly cited tools were the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) and variations of the Schutte Self-Report Emotional Intelligence Test (SSEIT). In a systematic review of the overall impact of emotional intelligence on nursing, Michelangelo (2015) found the use of 25 different emotional intelligence testing instruments in 395 studies involving nursing students and

nurses. Measurements often included an overall emotional intelligence score and numerous sub-factor(s) scores.

It is difficult to conclusively report the collective impact of emotional intelligence in nursing education based on the number of methodologies used. Caution should be exercised when drawing conclusions from both performance and self-report measures. It is likely that these measures will yield different findings for the same individual (Brackett & Mayer, 2003; Coady, Byrne, & Casey, 2018). There are risks associated with self-report measures. For example, participants may lie or respond in a manner that they believe is correct or desired. Conversely, performance measures provide a singular and objective score of emotional intelligence. Performance and self-report measures are the two methods reported in the literature to determine emotional intelligence by an overall score and various subset scores. Performance and self-report measurements of emotional intelligence will now be discussed.

Performance measurements of emotional intelligence. Performance measurements of emotional intelligence are used within the ability theoretical framework. The Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT) and its preceding versions the most commonly cited ability scale. The MSCEIT measures the four branches of emotional intelligence skills with questions based on processing of emotionally relevant items. The emotional perception measure of MSCEIT asks test-takers to rate emotion expressed in a picture (Brackett & Mayer, 2003). To determine emotional understanding, test-takers are asked how emotions blend and change overtime (Brackett & Mayer, 2003). Lastly, testers are presented hypothetical emotional situations to measure effective ways to manage intrapersonal and interpersonal emotions (Brackett & Mayer, 2003). Performance tests are considered standard and based on problem solving.

Therefore, the most correct response can be accurately determined, making it an objective measurement.

Self-report measurements of emotional intelligence. Self-report scale findings represent a combination of abilities and traits rather than a single measure of intelligence. The value of the self-report scale is that it measures one's perception of emotions, mood, and related personality traits. On the contrary, critics question the accuracy of self-report measurements for assessing intelligence if concurrent validity or reliability techniques are not implemented (Beauvais, Stewart, DeNisco, & Beauvais, 2014; Benson, Martin, Ploeg, & Wessel, 2012; Gribble, Ladyshewsky, & Parsons, 2017). The Bar-On Emotional Intelligence Inventory [EQ-i] and several self-report measures developed by Schutte et al. (1998) were among the most commonly reported in this review of literature.

The EQ-i is based on the Bar-On Emotional-Social Intelligence Model and measures five meta-factors and 15 subscales (Bar-On, 2006). The five meta-factors include: intrapersonal, interpersonal, adaptability, stress management, and general mood (Bar-On, 2006; Brackett & Mayer, 2003). The five factors and the emotional intelligence competencies and skills assessed by each scale are operationalized by the EQ-i (see Table 4).

Table 4

The EQ-i Scales and What They Assess[2]

EQ-i Scales	The EI competencies and skills assessed by each skill

Intrapersonal
  Self-regard
  Emotional self-awareness
  Assertiveness
 	
  Independence
  Self-actualization
	Self-awareness and self-expression:
	To accurately perceive, understand and accept oneself
	To be aware of and understand one's emotions
	To effectively and constructively express one's emotions and oneself
	To be self-reliant and free of emotional dependency on others
	To strive to achieve personal goals and actualize one's potential

Interpersonal
  Empathy
  Social responsibility
  Interpersonal relationship
	Social awareness and interpersonal relationship:
	To be aware of and understand how others feel
	To identify with one's social group and cooperate with others
	To establish mutually satisfying relationships and relate well with others

Stress management
  Stress tolerance
  Impulse control
	Emotional management and regulation:
	To effectively and constructively manage emotions
	To effectively and constructively control emotions

Adaptability
  Reality-testing
 	
  Flexibility
 	
  Problem solving
	Change management:
	To objectively validate one's feelings and thinking with external reality
	To adapt and adjust one's feelings and thinking to new situations
	To effectively solve problems of a personal and interpersonal nature

General mood
  Optimism
  Happiness
	Self-motivation:
	To be positive and look at the brighter side of life
	To feel content with oneself, others and life in general

Summary of measurements of emotional intelligence. There are several

instruments that have been used to measure emotional intelligence in nursing. Emotional

intelligence instruments used in nursing education research include but are not limited to:

Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), Schutte Self-Report

Emotional Intelligence Scale (SSEIT), Situational Test of Emotional Understanding (SIT-

EMO), Trait Emotional Intelligence Questionnaire (TEIQue), and Wong and Law

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[2] From "The Bar-On model of emotional-social intelligence (ESI)," by Bar-On, R., 2006, *Psicothema*, *18*, p. 23. Copyright 2019 by Consortium for Research on Emotional Intelligence in Organizations (www.eiconsortium.org). Reprinted with permission. See Appendix A.

Emotional Intelligence Scale. The most predominantly used tests of emotional intelligence in nursing education are the iterations of scales developed by Schutte et al. (Ilievova, Juhasova, & Baumgartner, 2013; Sharon & Grinberg, 2017; Stenhouse et al., 2016; Štiglic et al., 2018) and the Mayer-Salovey-Caruso Emotional Intelligence Test (Ball, 2013; Beauvais, Brady, O'Shea, & Quinn Griffin, 2011; Codier & Odell, 2014; Orak et al., 2016; Shanta & Gargiulo, 2014). The numerous emotional intelligence measurements and related surveys create a challenge to confidently report findings from studies in nursing education.

Emotional Intelligence in Nursing Education

Emotional intelligence in nursing education is a concept that has been studied since 2013, with original research dating back to the early 1990s. Emotional intelligence in nursing is a new and developing concept with limited empirical evidence (Akerjordet & Severinsson, 2007, 2010; Parsa Yekta & Abdolrahimi, 2015). Nursing education and nursing practice have studied predictors, correlates, and outcomes associated with the development of emotional intelligence. Studies reviewed in nursing education lacked a consistent theoretical framework, methodology, and findings, making it was difficult to draw strong conclusions regarding the relationship or impact of emotional intelligence in nursing education. Findings in nursing education emotional intelligence research are presented in a thematic fashion in the following subtopics.

Emotional intelligence correlates, predictors, and related factors.
Correlational studies in nursing education incorporated both the abilities model (Ball, 2013; Beauvais et al., 2011; Codier & Odell, 2014; Por, Barriball, Fitzpatrick, & Roberts, 2011) and mixed model (Benson et al., 2012; Cerit & Beser, 2014; Foster et al., 2017; Shanta & Gargiulo, 2014; Štiglic et al., 2018) of emotional intelligence frameworks.

Descriptive data was examined to determine emotional intelligence correlates in nursing education. Common demographic factors explored were age and gender. Time in an academic nursing program was also examined as a correlate. Multiple tools were used to measure correlates of emotional intelligence; most commonly cited was the MSCEIT.

   Age. The majority of studies reported descriptive statistics related to age comprised primarily of traditional undergraduate students ages 18 to 25 years old. Six studies specifically examined the correlation between age and emotional intelligence. Age was not found to be significantly correlated with the ability or mixed model of emotional intelligence in the majority of studies reviewed (Foster et al., 2017; Cerit & Beser, 2014; Shanta & Gargiulo, 2014; Codier & Odell, 2014). Por, Barriball, Fitzpatrick, and Roberts (2011) found higher age had a strong correlation with emotional intelligence. Although the majority of studies did not find age correlated with emotional intelligence, there is evidence that, over specific time periods, emotional intelligence scores increase.

   Foster et al. (2017) found that the overall emotional intelligence score and subscale, using emotions, were significantly higher over the first two semesters. Similarly, Cerit & Beser (2014) reported fourth-year students had statistically significant higher emotional intelligence in the subscale, emotional awareness. Sharon and Grinberg (2017) also found a significant difference in emotional intelligence when comparing between 110 first-and second-year students in a baccalaureate nursing program. In a study of both undergraduate and graduate nursing students, Beauvais, Stewart, DeNisco, and Beauvais (2014) found the overall emotional intelligence score to be moderately correlated to graduate students only. In a study of 528 nursing students, Stenhouse et al. (2016) reported performance, although not emotional intelligence, in the practice learning environment increased with age from entry to end of first year.

Given the inconsistencies in literature review findings, it is difficult to determine if there is a correlation between age and emotional intelligence. There are too many confounding variables to make a valid determination. Variables include, but are not limited to, exposure to emotional intelligence, program type, and methodology used. Therefore, the findings are inconclusive.

Gender. Several studies explored the relationship and predictive nature of gender related to emotional intelligence. Given the profession of nursing attracts and employs a disproportionately higher number of females, participants from nursing education and practice setting reported are predominantly female. Gender was not found to be significantly correlated with emotional intelligence (Cerit & Beser, 2014; Codier & Odell, 2014; Foster et al., 2017; Štiglic et al., 2018). Emotional intelligence over time and in comparison to educational program type and content exposure found no significant difference based on gender (Cerit & Beser, 2014; Foster et al., 2017; Por et al., 2011). Similar findings were reported by Hen and Goroshit (2011) in undergraduate social work students across four years.

Only Codier, Kofoed, and Peters (2015) and Štiglic et al. (2018) reported a difference in emotional intelligence scores by gender, with females scoring higher. In comparison, Perez-Fuentes et al. (2018) also found a statistically significant difference in emotional intelligence levels for females, but only on the intrapersonal subscale. The findings for the correlation between gender and emotional intelligence are inconclusive. Although these two studies reported a correlation, it appears to be isolated to the population under study or subscale measurement rather than a robust collection of significant findings.

Time. There is strong evidence that suggests overall emotional intelligence or subscale measurements, for both ability and mixed-model types, increases over the duration of an academic nursing program (Benson et al., 2010; Carvalho, Guerrero, & Chambel, 2018; Cerit & Beser, 2014; Foster et al., 2017; Grant, Kinman, & Alexander, 2014; Hen & Goroshit, 2011; Kaya et al., 2017; Sharon & Grinberg, 2017; Vishavdeep, Sharma, Das, PrahbhjotMalhi, & Ghai, 2016). In contrast, Benson, Martin, Ploeg, and Wessel (2012) found no significant change in overall emotional intelligence across three years in an undergraduate nursing program. Inconsistent with the majority of findings, Collins, Covrig, and Newman (2014) found graduate nurse anesthesia students had lower overall emotional intelligence scores in the last semester compared to at matriculation.

General Discussion of Correlation Studies. Previous experience with caring behaviors was not found to impact emotional intelligence in nursing students (Štiglic et al., 2018). Similarly, Shanta and Gargiulo (2014) and, Cerit and Beser (2014) reported exposure to nursing education alone was not found to increase overall emotional intelligence. Although caring behaviors and nursing education exposure lacked a significant impact on emotional intelligence, changes in overall emotional intelligence have been positively correlated with leadership and caring (Benson et al., 2012). In a study of 130 nursing students, emotional intelligence was found to be positively correlated ($p < 0.01$) with perceived nursing competency, subjective well-being, and problem solving, while negatively correlated ($p < 0.01$) with perceived stress (Por et al., 2011). Beauvais, Brady, O'Shea, and Quinn Griffin (2011) explored emotional intelligence and nursing performance among nursing students and found a weak statistically significant relationship. Total emotional intelligence scores were significantly correlated with nursing performance in areas of teaching and collaboration, planning and

evaluation, interpersonal relations and communication, and professional development (Beauvais et al., 2011).

Nursing education research has explored hypotheses related to academic success and withdrawal or burnout in nursing school. Sharon and Grinberg (2017) examined the relationship between the level of emotional intelligence and degree of success in nursing studies. Correlations between the total emotional intelligence score and annual average grades for first- and second-year students were significant; this was in addition to improved emotional intelligence score during the second year (Sharon & Grinberg, 2017). Using a related measure of academic success, Kaya, Şenyuva, and Bodur (2017) reported a positive correlation between critical thinking and emotional intelligence at the beginning and end of the academic year for freshman nursing students. Like Sharon and Grinberg (2017), Kaya et al. (2017) noted a significant awareness of emotions at the end of the academic year. In a longitudinal study conducted over three years, Foster et al. (2017) concluded that emotional mastery skills can be learned after reporting an increase of total emotional intelligence and using emotions subscale over time.

On the contrary, Shanta and Gargiulo (2014) explored the impact of nursing education on emotional intelligence and found no significant difference between pre-major and senior nursing students' emotional intelligence knowledge. The single best predictor and factor of greatest variance in the overall level of emotional intelligence was grade point average (GPA) (Shanta & Gargiulo, 2014). Likewise, Codier and Odell (2014) reported pre-admission GPA and total emotional intelligence score in first-year nursing students were significantly correlated.

Emotional competence and personal attributes conducive to effective and harmonious interactions with others, often referred to as 'soft skills,' have potential use

for admissions criteria (Benson et al., 2012; Cleary, Visentin, West, Lopez, & Kornhaber, 2018; Codier & Odell, 2014; Shanta & Gargiulo, 2014; Stenhouse et al., 2016; Sharon & Grinberg, 2017). A variety of personality traits, motivation, and associated experiences have been studied in nursing students related to emotional intelligence. Carvahol, Guerrero, and Chambel (2018) found emotional intelligence to be significantly associated with decreased burnout and increased life satisfaction in medical, nursing, and physiotherapy students. Additionally, a comparison of students' withdrawal rates found social connection scores to be statistically significant (Stenhouse et al., 2016).

Student development in emotional intelligence. Various emotional intelligence educational sessions including weekly sessions, prescribed hours per semester, or a one-day workshop have been implemented and tested. Frameworks used to test emotional intelligence development in nursing education were predominantly based on a mixed model.

Findings indicate that teaching emotional competencies may provide a stronger interpersonal and intrapersonal skill set (Waite & McKinney, 2015). In a study of 14 undergraduate nursing students who voluntarily participated in an 18-month leadership program, Waite and McKinney (2015) reported a statistically significant level of emotional self-awareness, emotional self-control, and inspirational leadership. Likewise, following a full-day event focused on emotional intelligence, 173 undergraduate nursing students reported improved understanding of personal social skills. These students also reported emotional intelligence was needed throughout the curriculum and in advance of clinical experiences (Judge et al., 2018).

Similarly, Vishavdeep, Sharma, Das, PrahbhjotMalhi, and Ghai (2016) reported a statistically significant ($p < 0.001$) effect of seven emotional intelligence training sessions

for 224 nursing students using the Emotional Intelligence Test. The findings from this study reported an increase in self-awareness, self-management, and social skills that are not traditionally emphasized in nursing education curriculum. This adds to the growing body of research that supports emotional and social competencies in nursing education curriculum.

There are contrary findings reported. In a quasi-experimental study, Orak et al. (2016) examined the effect of a series of eight two-hour classes, scheduled weekly, which showed no statistically significant differences between control and experimental groups using the MSCEIT. Ilievova, Juhasova, and Baumgartner (2013) examined the impact of psychological and social training in relation to students' self-efficacy in the care of geriatric patients from the emotional intelligence perspectives, feature and ability. Like Orak et al. (2016), Ilievova et al. (2013) found no relationship between emotional intelligence as an ability and self-efficacy or emotional understanding.

In regard to curriculum and instruction, researchers commonly recommended emotional intelligence content be integrated throughout a program of study (Collins, Covrig, & Newman, 2014; Shanta & Gargiulo, 2014; Sharon & Grinberg, 2017). Faculty development efforts to strengthen the understanding and use of emotion in teaching and learning practices were also suggested (Cerit & Beser, 2014; Gribble et al., 2017; Kaya et al., 2017; Kaya, Şenyuva, & Bodur, 2018; Opsahl, Auberry, Sharer, & Shaver, 2018). The development of emotional intelligence research in nursing education and emotional intelligence are limited and more evidence is needed.

Qualitative studies in emotional intelligence. Qualitative research was limited regarding emotional intelligence and nursing education. In a study of nursing and pharmacy students, McCloughen and Foster (2018) examined challenging interpersonal

interactions and management strategies of students during clinical experiences. In a sample of 12 nursing students and eight pharmacy students, two themes were identified: encountering the unexpected and behaving professionally. Conflict was common in the clinical setting for students and staff, as well as among health care professionals. Challenging situations were attributed to negative staff communication and behaviors consistent with bullying. Students described conforming to what they believed was the expected student role in a conscious effort to be "professional" (McCloughen & Foster, 2018).

Tharani, Husain, and Warwick (2017) explored nursing students' understanding relating to factors affecting emotional well-being. Understanding of emotional well-being varied based on year in the undergraduate nursing program. More experienced students were able to connect emotional well-being with coping and managing stress (Tharani, Husain, & Warwick, 2017). Themes for factors affecting emotional well-being included positive or negative teaching approach, unrealistic scheduling and assessment demands, and lack of resources (Tharani et al., 2017). Of most significant concern was the faculty role and a need to address the unintended lessons students learn and the resultant impact on professional development. Professional formation and socialization expectations do not appear to be clearly understood by nursing students (McCloughen & Foster, 2018; Tharani et al., 2017).

Emotional intelligence in nursing education and practice. Akerjordet and Severinsson (2010) explored the science of emotional intelligence related to nursing leadership and reported that a "great deal of confusion about the exact meaning of emotional intelligence exists and at times the multitude of qualities covered by the concept appears overwhelming" (p. 369). In 2015, Parsa Yekta and Abdolrahimi

reviewed 43 articles and conducted a concept analysis of emotional intelligence in nursing. Based on four defining attributes of emotional intelligence, Parsa Yekta and Abdolrahimi (2015) defined emotional intelligence in nursing as "the nurse's constructive ability to demonstrate and facilitate self-awareness, self-management, social awareness, and social relationship management" (p. 159).

In a study evaluating the assessment of novice nurses' professional competence, 227 nurse educators and managers completed the Nurse Competence Scale, a tool based on Benner's framework (Numminen et al., 2014). Findings reported differences between academia and practice expectations in all competence categories measured: helping role, teaching-coaching, diagnostic functions, managing situations, therapeutic interventions, ensuring quality, and work role (Numminen et al., 2014). The authors concluded that the statistically significant differences highlight the theory-practice gap and found cooperation between education and practice to be deficient. Focus groups, comprised of alumni and practice partners, also found emotional awareness, social-awareness, and self-awareness to be among the top 10 qualities needed for new-to-practice nurses (Bouchaud, Brown, & Swan, 2017).

Inconsistency about which emotional intelligence characteristics should be included in the curricula, related pedagogy, and evaluation has created challenges in the development of a specific skill set for nursing and health care curriculum (Bulmer Smith, Profetto-McGrath, & Cummings, 2009; Codier & Codier, 2017; Kooker, Shoultz, & Codier, 2007; McCloughen & Foster, 2018). James (2018) and Parnell and St. Onge (2015) recommended more research to further empirical evidence to support the relationship between emotional intelligence, clinical decision making, and the delivery of safe nursing care.

In earlier work, Akerjordet and Severinsson (2007) reported that emotional intelligence findings are only representative of the past and encourage innovative research methods to develop theoretical and empirical knowledge in the context of nursing education. There is evidence that a defined emotional intelligence skill set, co-created by education and practice, is needed. "An education that ignores the value and development of the emotions is one that denies the very heart of the art of nursing practice" (Freshwater & Stickley, 2004, p. 93).

Emotional Intelligence in Higher Education

Emotional intelligence in higher education is a concept that has been extensively studied since Goleman's work was published in 1995. Given the enormity of research in the area of emotional intelligence and higher education, it should be noted that the findings reported are from a narrow review of literature. Although limited, the findings are used to support a better understanding of the state of emotional intelligence in nursing education as a subset of higher education.

Studies reviewed included pre-health profession programs, business, and accounting. The majority of the research reviewed utilized a mixed model; only three studies applied an ability framework (Gelaidan, Al-Swidi & Mabkhot, 2018; Hen & Goroshit, 2011; Noorbakhsh, Besharat, & Zarei, 2010). Measurements of emotional intelligence used in higher education, like nursing, are numerous. Based on the literature reviewed, there appears to be consensus that emotional intelligence can be developed in higher education.

Within similar programs of study, common frameworks and measurements have been implemented. For example, in two separate undergraduate social work studies, Grant, Kinman, and Alexander (2014) and Hen and Goroshit (2011) both used the

Schutte Self Report Emotional Intelligence Test (SSEIT). Likewise, emotional intelligence research in radiation therapists and radiographers used trait measurements (de Galvão e Brito Medeiros et al., 2017; Stami, Ritin, & Dominique, 2018). Business and leadership, accounting, medicine, and specifically clinical learning experiences were often based on a mixed model (Boyatzis & Saatcioglu, 2008; Boyatzis, Stubbs, & Taylor, 2002; Coady et al., 2018; Smith, Farmer, Walls, & Gilligan, 2008; Gribble et al., 2017; Saxena, Desanghere, Stobart, & Walker, 2017).

The predominant use of a mixed model means more findings are reported related to personality traits and associated measures, as opposed to correlations. In a review of 14 studies from higher education, age was not examined in relationship to level of emotional intelligence. Similarly gender, when reported, was not found to be statistically significant with emotional intelligence measures using the SSEIT (Hen & Goroshit, 2011; Noorbakhsh et al., 2010). In a study of emotional predictors in radiation therapists, Stami, Ritin, and Dominique (2018) found females had higher trait global emotional intelligence scores.

de Galvão e Brito Medeiros et al. (2017) reported no significant difference in emotional intelligence scores across three years among radiography students and radiographers qualifying for practice. However, a comparison of year one and year two yielded a statistically significant difference in emotional intelligence. Comparatively, first-year undergraduate social work students' overall level of emotional intelligence measured higher two months after an intervention aimed to enhance emotional competency (Grant et al., 2014).

Gilar-Corbí, Pozo-Rico, Sánchez, and Castejón (2018) tested the theory that emotions mediate the acquisition of knowledge. In a comparison of control and

experimental groups based on teaching methodologies, the level of competence in experimental participants was significant in both measures and all related factors (Gilar-Corbí, Pozo-Rico, Sánchez, & Castejón, 2018). In addition, Hen and Goroshit (2011) reported overall findings suggestive of improvements in emotional intelligence for 165 undergraduate social work students following an academic course aimed at increasing empathy.

One consistent finding across higher education was actual and perceived improvements in emotional intelligence, related personality traits, and motivation when measured over time (Boyatzis & Saatcioglu, 2008; Boyatzis et al., 2002; Flowers, Thomas-Squance, Brainin-Rodriguez, & Yancey, 2014) and in response to emotional intelligence educational interventions (Gilar-Corbí et al., 2018; Grant et al., 2014; Hen & Goroshit, 2011).

Gribble, Ladyshewsky, and Parsons (2017) reported interactions with supervisors and patients, as well as reflective feedback influenced emotional intelligence skills, positively and negatively, in therapy students' clinical placements. The development of professional identity and clearly communicated feedback as part of clinical evaluation were highlighted by Smith, Farmer, Walls, and Gilligan (2008). Reflection on practice, particularly related to clinical learning experiences, has been examined with positive findings (Grant et al., 2014; Gribble et al., 2017). Smith et al. (2008) concluded one key problem in clinical evaluation was determining appropriate measurements for professional identity.

The research in business education is robust in higher education. Measures of emotional intelligence, multiple related measurements, and a large longitudinal study measuring the emotional, social, and cognitive intelligence in graduate business

education were reviewed in this small sample of articles. In a 50-year longitudinal study of multiple graduate business student cohorts, educational experiences were found to develop managerial and leadership performance competencies (Boyatzis & Saatcioglu, 2008; Boyatzis et al., 2002). Gelaidan, Al-Swidi, and Mabkhot (2018) found leadership behavior and emotional intelligence are significantly related to employees' readiness for change.

Similar to business education, Coady, Byrne, and Casey (2018) explored emotional intelligence in new accounting graduates and employers to determine collaborative expectations based on expertise from both education and industry. To summarize, Codier et al. (2018), reported a similarity between employer and new graduate responses for the most and least important individual skills. Another key finding was employers' and new graduates' shared perspectives about the importance of individual skills and attitudes about emotional intelligence skills (Codier et al., 2018).

The findings presented from higher education were selected to provide research from a similar and larger context. Notable successes reported in higher education can be used, in part, to inform emotional intelligence research in nursing education.

Summary

As a new concept in intelligence, theoretical models are new and evolving based on limited empirical evidence. The two most common models of emotional intelligence are the ability and mixed model. Measurements include performance, typically used with the ability model, and the self-report used with the mixed model. The journalistic and popularized notion of emotional intelligence has garnered much attention since the mid-1990s, to the detriment of a strong empirical understanding of emotional intelligence in nursing. Given the variability in model, measurements and survey tools, and performance

outcomes, it can be surmised that emotional intelligence as a concept in nursing

education lacks a clear and consistent understanding. As a result, greater attention needs

to be on identifying and understanding the most important emotional-social intelligence

competencies, skills, and facilitators needed for nursing practice.

CHAPTER III: METHODS AND PROCEDURES

This chapter presents the methods and procedures that were used in this qualitative grounded theory study. Rationale for the chosen research design and population of interest is discussed. Instrumentation and the role of the researcher are described. An explanation of sample size, data collection procedures, and data analysis methods grounded in Corbin and Strauss's (2008) research design are explained. Ethical considerations and quality measures are also addressed in this chapter.

Research Design

This research study was a grounded theory qualitative study, which was a valid design to explore emotional-social intelligence in nursing. This research design was selected because a model for emotional-social intelligence for nursing was not found in the literature. The methodology of grounded theory was developed by Glaser and Strauss (1967) for the purpose of examining and interpreting data to build theory. The perspectives of the participants are central in a qualitative study (Corbin & Strauss, 2008). Grounded theory is used by Corbin and Strauss (2008) as a generic term to describe the theoretical constructs or developing empirical knowledge, understanding, and meaning as a result of qualitative analysis.

Systematic procedures are used in grounded theory to collect data, identify categories or themes, connect categories, and form a theory to explain a process (Creswell & Guetterman, 2019). Since the theory is generated from grounded data, it provides an explanation that is sensitive to an identified population and presumably works in practice (Corbin & Strauss, 2008). For instance, existing emotional and social intelligence theories in human performance may be less applicable to nursing populations than the general population. The systematic design of grounded theory from Corbin and

Strauss (2008) is characterized by flexible, yet rigorous, detailed procedures; specifically the use of open, axial, and selective coding for data analysis and the development of a pictorial representation of the theory (Creswell & Guetterman, 2019).

The systematic design, used widely in educational research, was chosen to guide the researcher in the practical and theoretical understanding of grounded theory. The clearly identified procedures of Corbin and Strauss (2008) are ideal for the beginning researcher. Furthermore, the recent and extensive research and mainstream publications on emotional intelligence provided an opportunity to discover more conclusive findings for nursing.

Population and Sample

The population of interest was frontline nurse managers with a minimum of three years' experience in their current position. The frontline nurse manager was defined as a manager of a patient care area, involving nursing work and supervision of performance responsibilities. According to Benner (2001), a minimum of three years of experience in the same or similar situation assumes role proficiency. Experience is needed to describe the development and regular use of emotional-social intelligence skills by registered nurses.

Nurse managers, rather than registered nurses, were selected based on their ability to describe the emotional-social intelligence skills of registered nurses without self-bias. Unlike administrative nurse managers, frontline nurse managers work closely with registered nurses. Additionally, frontline nurse managers supervise performance and assess success in the registered nurses' ability to fulfill their respective roles and responsibilities.

Inclusion criteria were: (1) adult (19 years old or older), (2) frontline nurse manager in an acute care setting, and (3) minimum three years of experience in current position.

Exclusion criteria were: (1) frontline nurse manager in area of nursing requiring specialization and/or additional population specific knowledge and training, i.e. emergency department, pediatrics, maternal-newborn; (2) nurse manager with only administrative responsibilities; and (3) nurse manager in community-based settings.

A purposeful sampling method of an accessible population was used to select participants. Purposeful sampling was used to intentionally select sites and participants who could best provide understanding of emotional-social intelligence in registered nurses (Creswell & Guetterman, 2019). According to Creswell and Creswell (2018), the estimated number of participants for grounded theory research is at least 20 or when themes reach saturation. Saturation was achieved after eight interviews when subsequent participant interviews failed to yield compelling new insights or categories of information.

The recruitment sites included six rural and urban hospitals in southeast Nebraska. There was representation from both urban and rural hospitals, which provided variation based on geographic location and population. Diverse representation from both rural and urban communities yielded more broadly applicable findings.

Demographics

The data for this study were collected from eight frontline nurse managers employed at hospitals in southeast Nebraska. The majority of participants were between the ages of 31 and 54 years. Per inclusion criteria, the minimum years of experience as a frontline nurse manager was three years; in the sample, the average time as a frontline

nurse manager was 7.9 years. Experience working as a registered nurse ranged from six to 30 years, with an average of 16.9 years. There were four participants each from rural and urban hospitals. All participants were female.

Description of Setting

The research was conducted in urban and rural hospitals in southeast Nebraska (see Table 5). The delineation of urban or rural hospitals was determined using characteristics obtained from the National Geographic Encyclopedia (2019) and the United States Census Bureau (Ratcliffe, Burd, Holder, & Fields, 2016). The bed size categories were adapted from the United States region, urban-rural designation created by the Agency for Healthcare Research and Quality ([AHRQ], 2008).

Table 5

Recruitment Sites by Urban/Rural Designation and Bed Size

Recruitment Site	Urban/Rural	Bed Size
Bryan Health – Bryan Medical Center East Campus	Urban	559
Bryan Health – Bryan Medical Center West Campus	Urban	230
Columbus Community Hospital	Rural	47
Crete Area Medical Center	Rural	24
Saunders Medical Center	Rural	76
Seward Memorial Hospital	Rural	24

A rural hospital was defined as a hospital located in settlements characterized by a low population density and a bed size of 1 to 99 beds. The rural bed size for this study ranged from 24 to 76 beds. Urban hospitals were defined as hospitals located within a metropolis, which belongs to a city or town, with a high population density and a bed size

of more than 100 beds. The urban hospital bed size for this study ranged from 230 to more than 500. The recruitment sites selected were geographically diverse to enhance the transferability of the findings.

A purposeful sampling method of an accessible population was used to select participants. The participants were recruited from hospitals in which the population was easily accessible to the researcher, and therefore was a convenience sample (Creswell, 2013). The focus on acute care settings was important to establish a theory that could be broadly applicable to nursing.

Instrumentation

The data collection instruments used in this study were a demographic survey, interview protocol, and emotional-social intelligence checklist. The demographic survey collected data on gender, age, and years of experience as a registered nurse and frontline nurse manager (see Appendix B). The interview protocol was implemented to provide a guiding framework for the one-on-one interviews (see Appendix C). The emotional-social intelligence checklist was based on the Bar-On (2006) model of emotional-social intelligence and used to establish common definitions of emotional-social intelligence skills (see Appendix D). The demographic survey, interview protocol, and emotional-social intelligence checklist were reviewed by Bryan College of Health Sciences nursing faculty with a doctoral degree and qualitative research experience. The feedback received was used to revise interview and survey questions to ensure clarity and appropriateness.

The role of the researcher in data collection consisted of the use of open-ended, semi-structured interview questions. Open-ended questions were used to gather unconstrained statements from participants. The use of semi-structured questions and

follow-up probes allowed the researcher to have better control over the information received to support answering the research questions.

Procedure

      Data collection procedures. The data collection methods and procedures for this study included the following: (a) permission to conduct interview, (b) scheduling of interview, (c) interview, (d) transcription of interview, and (e) analysis. Using an interview protocol and an emotional-social intelligence checklist, which also served as an informational handout to avoid misunderstandings, the researcher was able to ensure a semi-structured interview format. This study was approved by the Bryan College of Health Sciences Institutional Review Board (see Appendix E).

      The chief nursing officer from each hospital was contacted for permission to conduct interviews with frontline nurse managers. Additional approval was required and received from Bryan Medical Center's Administrative Approval for Research/Clinical Studies Committee (see Appendix F). An overview of the study, purpose, and recruitment email for participants was communicated via email. Chief nursing officers were asked to forward the invitation to participate and interested frontline nurse managers were asked to contact the principal investigator by email (see Appendix G).

      Interviews took place in a private location void of interruption, confidential, and mutually agreed upon. Informed consent (see Appendix H) was obtained upon arrival to the interview. A five-dollar gift card was provided before the interview as a token of appreciation. Participants were informed that interviews would be recorded for later transcription, as advised in the informed consent. A letter was assigned to each participant prior to the interview and used on the interview protocol and for naming electronic files. Participants were also informed immediately before the interview, as part

of the informed consent, of their right to withdraw at any time without negative consequences to participants' job, relationship with their employer, or relationship with the principal investigator. Measures to protect the identity of participants and confidentiality were communicated via informed consent. At the conclusion of the interview, participants were provided verbal reassurance of confidentiality as written in the closing statement of the interview protocol.

Participants were provided basic information about the study, estimated length of time for the interview, and plans for use of the interview results. Additionally, the researcher reiterated the purpose of the study and provided the participants with a definition of emotional-social intelligence and 15 factors of emotional-social intelligence skills based on the Bar-On Model (2006). The factors of emotional-social skills were provided in a handout and checklist that could be used throughout the interview.

The first method of data collection was a demographic survey. This information was collected to describe the attributes of the population sample. The selected demographic characteristics were chosen based on the possible association with the phenomena being studied. Email addresses and phone numbers were obtained to contact participants after the interview for member checking.

The second method of data collection was in-person, one-on-one interviews. Participants were informed in the invitation to participate, informed consent, and immediately before the interview commenced that interviews would be recorded and transcribed. An interview protocol was used to ask questions and record answers during the interview. The interview questions were set forth in a logical manner, from broad to specific, and in regards to the research questions and checklist. The interview questions were developed for the purpose of obtaining the richest possible source of information to

generate theoretical understanding of essential emotional-social intelligence skills and their development in registered nurses.

Included in the interview process was the use of an emotional-social intelligence skills checklist based on the Bar-On Model and operationalized by the Emotional Quotient Inventory (Bar-On, 2006). Participants were asked to identify the three most important emotional-social intelligence skills essential for the registered nurse to perform their job functions. Open-ended responses were also collected to identify the development and use of those skills observed.

Additionally, the researcher noted that interview questions were answered within a reasonable timeframe, predefined as approximately 60 minutes. This amount of time provided adequate time for participant and researcher to get acquainted, to relax, and to achieve a well-paced interview dialogue. All interviews lasted between 30 and 45 minutes.

Although data collection and analysis occurred simultaneously, the data management process followed sequential steps. Preceding each interview, the interviewee was assigned a letter. In addition to digital audio recording, the researcher took notes during the interview. These notes provided the researcher a timely method for recording ideas and insights that occurred during interviews, such as a specific reaction and/or body language, which was part of qualitative analysis.

Analytical procedures. The grounded theory methodology of Corbin and Strauss (2008) was used for data analysis. Formal data analysis, using constant comparison, commenced with the first interview and continued concurrently with subsequent interviews. The researcher was immersed in the data by listening to audio recordings, transcribing interviews, and rereading notes and transcripts. During the analysis process,

the researcher read, reviewed, and reflected on the data. The method of memoing, in the form of methodological notes, was used to document general thoughts about the research process and transcribed interviews to record ideas and insights that occurred.

The researcher used MAXQDA Analytics Pro (VERBI Software, 2018) for analysis, hereafter referred to as MAXQDA. A digital logbook, coding memos, and methodological notes were also used to record the thought process and decision making process for codes, categories, and themes in MAXQDA. Theoretical comparison and the emotional-social intelligence skills checklist were used to consider similarities and differences and to triangulate with the existing Bar-On (2006) Model of Emotional-Social Intelligence and Emotional Quotient Inventory factors (Bar-On, 2006).

The grounded theory procedures for coding from Corbin and Strauss (2008) were used by the researcher. The systematic approach to data analysis included: open coding, axial coding, and selective coding. Open coding, referred to as Level I coding in grounded theory studies (Gray, Grove, & Sutherland, 2017), was used first to reduce the interview data into manageable words or phrases. This open coding process required the researcher to consciously put aside any preconceived notions about emotional-social intelligence skills in nursing. After transcription, the researcher read each interview in entirety, without memos. Following this step interview data was organized into meaningful segments. Transcribed interviews were then imported into MAXQDA for analysis.

Axial coding was used next and is referred to as Level II coding in grounded theory data analysis (Gray et al., 2017). The code system in MAXQDA was used to assign top-level codes and, after further analysis, sub-codes. The code system was used to retrieve segments of the interview and assign them a code; thereafter, these were referred

to as coded segments. As analysis progressed, data sets were created to categorize data into two sets: essential emotional-social intelligence skills and development. Coding for essential emotional-social intelligence skills primarily used in-vivo coding, which is the act of selecting meaningful terms verbatim from data (Corbin and Strauss, 2008; VERBI Software, 2017). Coding with newly defined or free codes was used for the development category. Color-coding was also used to easily distinguish between code sets.

Code comments and memos were used throughout axial coding to provide an overview, describe the researcher's thought process, and/or comment about the significance of analysis. Commonly used in grounded theory, logbook entries and memos were also created independent of coded document segments (VERBI Software, 2017). As additional interviews were transcribed and analyzed, codes were modified, connected with other code(s), or reassigned as a sub-code. Axial coding was used to assign related codes to categories and core themes and connections were made between data.

The final process of selective coding was used to choose core categories and themes that explained emotional-social intelligence in nursing practice. Existing theory and literature was reviewed in relationship to the emerging theory for parallels, similarities, and differences.

Ethical considerations. Ethical concerns were considered by the researcher. The researcher abided by ethical responsibilities throughout the study and with the exchange of data in accordance with the U.S. Department of Health and Human Services' (HHS) Code of Federal Regulations (45 CFR 46) Ethical Principles and Guidelines for the Protection of Human Subjects of Research (1974). The researcher implemented the following steps to secure participant safety and to ensure proper handling of data:

1. Used a private, confidential, and mutually agreed upon interview location selected by participants.

2. Used a letter to identify participants in an effort to protect the confidentiality of participants.

3. Requested participants not name individuals during the interview, and in the event of named individuals, the word "nurse" was used in transcripts.

4. Secured the data in locked office/drawer on a password-protected personal computer and encrypted flash drive during and upon conclusion of the study.

5. Deleted audio recordings of interviews upon conclusion of the study.

6. Proper disposal of data is planned for five years after the conclusion of the study.

Quality measures. Several qualitative validity procedures were used, including triangulation and bracketing, to set aside researcher bias. To check the accuracy of preliminary themes and interpretations derived by the researcher, in-vivo codes were compared to the emotional-social intelligence factor definitions. Triangulation included the use of the Bar-On emotional-social factors checklist used during participant interviews and analysis.

Peer debriefing and external audit was conducted by the researcher's dissertation chair (see Appendix I). The audit process occurred during data collection and analysis to review, but not limited to, findings grounded in data, appropriate themes, and evidence of researcher bias (Creswell & Guetterman, 2019). The use of rich, thick descriptions was used to convey findings, particularly when describing themes in detail. Member checking was completed by sharing with participants a copy of their coded transcript and overall codes and sub-codes. The four participants who responded were agreeable to the

identified codes and provided no additional information. Discrepant information was presented to increase credibility through the presentation of contrary findings. The use of a single interviewer using an interview protocol with each participant addressed dependability. Qualitative reliability was also established through the use of a single researcher, who conducted all interviews and transcription.

Summary

This study was a qualitative grounded theory study based on the methods of Corbin and Strauss (2008). The study explored the phenomenon of emotional-social intelligence in nursing practice. Using a purposeful sampling method, frontline nurse managers were recruited from rural and urban hospitals in southeast Nebraska. One-on-one interviews were conducted using semi-structured interview questions and an emotional-social intelligence skills checklist. A survey was used to collect demographic information. Ethical considerations and confidentiality were maintained throughout the study in accordance with federal regulations. Data analysis was completed using MAXQDA. The procedures for data analysis employed the methods of Corbin and Strauss (2008): open coding, axial coding, and selective coding. Data quality measures were implemented throughout the data collection and analysis process.

CHAPTER IV: RESULTS

The purpose of this study was to explore the essential emotional-social intelligence skills used and how these skills are developed in acute care registered nurses. This chapter will present the results of data analysis and a summary of significant findings from interviews with frontline nurse managers. First, demographic data relevant to the study's findings are presented. Next, the discussion is organized by research question with corresponding themes identified and supported by interview data. The research questions for this study were:

1. What are the essential emotional-social intelligence skills for role performance in practicing registered nurses?

2. How are emotional-social intelligence skills developed in nursing?

Last, a summary of the essential emotional-social intelligence skills and the concepts of development are discussed.

Demographic Data

The data for this study was collected through purposeful sampling from eight frontline nurse managers. There were four participants each from rural and urban hospitals, all of which identified as female. Participant age was collected using the ranges: 30 years old or less, 31 to 42 years old, 43 to 54 years old, and 55 or more years old. The majority of participants were between the ages of 31 and 54 years old (see Table 6).

Table 6

Participants' Age Range Frequency

Age Range	<30 years old	31-42 years old	43-54 years old	55+ years old
	1	4	2	1

The years of experience as a registered nurse reported by participants ranged from six to 30 years (see Table 7). The mean years of experience as a registered nurse was 16.9 years. The number of years of experience as a frontline nurse manager reported by participants ranged from three to 25 years (see Table 7). The majority (87.5%) of participants had less than 10 years of experience as a frontline nurse manager with an average of 7.9 years.

Table 7

Participants' Years of Experience as Registered Nurse and Frontline Nurse Manager

Participant	Years of Experience as Registered Nurse	Years of Experience as Frontline Nurse Manager
B	25	6
C	29	8
E	6	4
F	15	9
G	7	4
H	30	25
I	7	4
J	16	3

Results

The data from this study was collected during one-on-one interviews using an

interview protocol and emotional-social intelligence checklist. The interviews used a semi-structured format that began with a broad opening statement which validated that the participant's role as a frontline nurse manager included observation of acute care nurses. Participants were then asked to identify the most important emotional-social intelligence factors they observed registered nurses use from a checklist. The checklist included Bar-On's (2006) 15 Factors of Emotional-Social Intelligence Model and definitions (see Appendix D). Additional information for each skill identified by participants was gathered during the interview process to determine why these skills were selected and how they are used in practice. Furthermore, participants were asked to describe observations that demonstrated the skills identified.

All participants were able to identify three emotional-social intelligence skills. Six participants found it difficult to identify only three essential emotional-social intelligence skills and included additional skills they felt were important. The number of additional factors reported as essential by participants ranged from one to three. There were three participants who stated that they had observed all of the emotional-social intelligence factors in nurses at one time or another. For example, participant B stated: "I think I have observed all of these in nurses to some degree, I think I have...Some of them have quite a few of them. Some of them are probably still working on these." Another participant reported all skills with the exception of self-regard. Participants who reported having observed all or most skills were asked to identify those skills they felt were most important. All factors selected and the frequency of coded segments were explored (see Table 8). Coded segments refer to a segment of interview data retrieved and assigned a code.

Table 8

Frequency of Emotional-Social Intelligence Skills Identified as Essential

Emotional-Social Intelligence Skill	N	Frequency of Coded Segment
Empathy	8	34
Stress Tolerance	6	24
Flexibility	6	18
Problem Solving	5	16
Interpersonal Relationship	2	11
Independence	2	2
Emotional Self-Awareness	1	11
Happiness/Well-Being	1	3
Self-Actualization	1	3

Participants were also asked to describe how emotional-social intelligence skills are developed. In interviews, participants described emotional-social intelligence skill development within the context of the acute care setting. The development themes were derived from the data analysis step of selective coding and the frequency of coded segments (see Table 9).

Table 9

Emotional-Social Intelligence Development Themes and Frequency of Coded Segments

Theme	Frequency of Coded Segments	Sub-Theme	Frequency of Coded Segments
Mentor	9	Role-Model	5
Coach	9	Debrief	5
Engagement	9	-	-
Innate	8	-	-

This study also explored the use of emotional-social intelligence skills based on hospital size. There was not a significant difference in findings between participants from rural and urban sites. Additionally, data was collected to examine the use and development of emotional-social intelligence skills among new-graduate nurses and experienced nurses. There was no evidence to support a significant difference between the new-graduate nurses and experienced nurses. The interview concluded by providing participants the opportunity to share any additional thoughts that they felt were important for emotional-social intelligence in nursing. Participants did not provide responses that were significant to the study findings. As follows, the presentation of results is organized by research question and themes.

Research Question One: Essential Emotional-Social Intelligence Skills

The first research question was, "What are the essential emotional-social intelligence skills for role performance in practicing registered nurses?" Data analysis resulted in four major themes representing the essential emotional-social intelligence skills for registered nurse role performance: empathy, stress tolerance, flexibility, and problem solving. Each theme will be described and supported by participant statements.

Empathy. Empathy was defined for participants as the "ability to be aware of and understand how others feel" (Bar-On, 2006). The word empathy was coded in-vivo, or verbatim from interview transcripts, 33 times. Empathy was the only factor identified as an essential emotional-social intelligence skill by all participants. The essential nature of empathy for role performance was described as the most important for nursing success by participant I, who stated: "I think the most important, empathy, I selected because I've seen both ends of that. Nurses be extremely successful because they are able to understand how other people feel…empathize with a new nurse or a new physician or

provider." Highlighted in this example is the relationship between registered nurses and members of the health care team as part of role performance. This example demonstrated that empathy was related to successful role performance as a registered nurse.

The relationship and emotional-social connection nurses are able to establish with patients were important. Empathy was described as having a positive impact on the quality of care and patient outcomes. For example, participant J stated:

> My number one factor is empathy… I don't know if this is the right way to say this but, I feel like they are getting better care. Their [patients] quality of care is impacted because they [registered nurses] truly care about that patient, no matter why they're here, what their circumstances are, what happened. And you'll see that they [registered nurse] are more focused on their patients. They spend more time with their patients, and all of that. All of the qualities that go with empathy allow the patients to have better outcomes.

Nurses with empathy were described as being nonjudgmental and providing patient-centered care. Because of the focus and attention empathy brings to patient care, the registered nurse with empathy was described as providing higher-quality care. The awareness and understanding of others' emotions allowed the nurse to accurately respond to patient needs and improve outcomes.

Likewise, empathy was an important skill that impacted how the registered nurse cared for patients. Participant B described characteristics of empathy consistent with Bar-On's (2006) definition, like understanding and awareness of feelings, when stating:

> I choose empathy because I feel that's a very important one. Um, I feel like it's very important to be able to put yourself [registered nurse] in the patient's place and have an understanding of how they [patients] feel. I feel like you have to have

that – be able to put yourself [registered nurse] in that place so that you have that

knowledge. Um, because that does affect how you care for them [patients].

The participant described how empathetic awareness and knowledge worked together to

improve understanding of the patient experience. Without this intimate awareness and

knowledge, participant B concluded that patient care was affected.

Empathy was described as an emotional-social intelligence skill that is a natural

trait found in registered nurses and used in role performance. According to participant G,

"we're [nurses] naturally empathetic, and, and really tune into a lot of emotions and the

emotions of others." Similarly, participant H stated "I think all the nurses, um, that I work

with are like that…I don't think I have met a nurse that doesn't have, you know any

empathy and they're very, very caring." The inherent nature of empathy was reinforced

by participant C, "it [empathy] goes on all the time. I just don't even think about it."

Based on these findings, it was clear that the ability to be aware and understand others

was observed frequently in registered nurses.

Empathy was one of four essential emotional-social intelligence skills identified

in this study. It was the only factor chosen by all participants. Findings suggested that the

registered nurse has a natural ability to demonstrate awareness and understanding of

others, including patients and colleagues. As such, the descriptions of empathy were

consistent with the Bar-On (2006) definition provided to participants.

Stress tolerance. The second theme for research question one was stress

tolerance. Stress tolerance was defined for participants as the "ability to effectively and

constructively manage emotions" (Bar-On, 2006). This skill was identified as an

important emotional-social intelligence skill for nursing role performance by six

participants. Of these participants, four were from urban hospitals and two were from

rural hospitals. The phrase stress tolerance was coded in-vivo, or verbatim, 24 times.

This study found that the experience level of the registered nurse did not significantly impact stress tolerance. Participants provided strong examples of nurses using stress tolerance in practice. These examples, however, did not provide an adequate distinction between the new graduate and experienced registered nurse. For example, participant C ranked stress tolerance as the most important skill and stated, "I wouldn't say the stress tolerance is something I really see in the beginner or older or younger. It's just everybody's stressed in health care a little bit. Some of them just handle it better." Overall, participants described stress tolerance as an emotional-social intelligence skill that is needed by all registered nurses.

The working environment and situations encountered by the registered nurse were frequently cited as influencing the demand for stress tolerance. According to participant G, "we [nurses] are under a lot of stress…and as every year goes on it seems to increase, the stress level." Similarly, participant E stated, "they [nurses] are in a stressful environment." Specific examples of the environment and situations were provided by participants. For example, participant G stated, "so stress tolerance I see a lot just because there is a high, fast-paced environment…And so you may have four to five patients, and four of them are discharging and then you get four admits that day." In reference to the work conditions, participant G went on to state how nurses use stress tolerance to effectively manage their emotions as, "having that ability to deal with the stress and look at it in a positive way, and relying on your coworker relationships to kind of help you out and get through it." Participants clearly identified that the acute care setting is stressful for registered nurses.

Several examples of the registered nurse constructively managing stress were

provided by participants. One example of stress tolerance was described as the registered nurse's ability to ask for help when needed and to delegate. Furthermore, participant E stated that if the registered nurse doesn't use delegation, "then you [registered nurse] burn yourself out because the stress of everything gets to you." The ability to delegate was also related to assertiveness and effective communication. In an example, participant I described nurses who do not have stress tolerance and the resultant impact on communication, as follows:

> If I had to choose one to be the third over the other I would say, I would say stress tolerance. …if they don't have that self-awareness of the emotions they're feeling and the stress level they're feeling and [they] can't manage them. And then we do see an impact there on their communication with one another and their workflow. Um, and even their physical and mental well-being.

Through this example, the participant recognized that the emotional-social intelligence factor of self-awareness was important for stress tolerance. Emotional self-awareness is defined by Bar-On (2006) as the "ability to be aware of, identify and understand emotions." The relationship between self-awareness, stress tolerance, and stress management techniques used by nurses was evident (see Figure 1). Based on participant statements, self-awareness was viewed as the key to stress tolerance. Without self-awareness, stress management techniques were not employed and stress persisted.
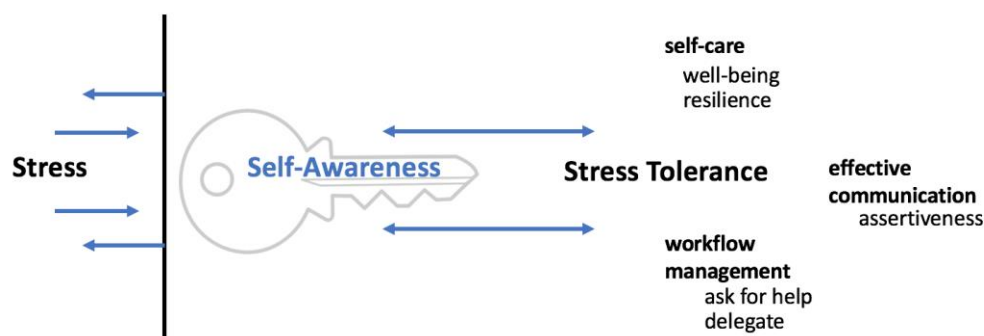
Figure 1. Relationship between self-awareness and stress tolerance

       Examples of stress tolerance provided by participants included workflow management, effective communication, and self-care. As described by participants, the concept of knowing one's self was a key factor for registered nurses. There were findings to support emotional self-awareness was needed for stress tolerance. Those nurses who employed stress management techniques for self-care were described as exhibiting self-awareness of the need for, and benefits of, taking a break and asking for help. The following example captures the stressful nature of some situations that the registered nurse must persist through and the importance of self-care to manage stress. Participant E was the only frontline nurse manager to highlight the experienced nurse in the context of stress tolerance and stated:

       More experienced nurses know the importance of taking a break. Know the importance of having to step away, so even at the moment when you're stressed and doing things and you have to get through it. Then afterward, you know, 'I just need a moment to re-group myself and then I can take that next admit…can I just have five minutes'….They just know that self-care.

Overall, findings from this study supported the importance of self-awareness for effective

stress tolerance in registered nurses.

Organization was a strong example of how nurses constructively and effectively managed stress. Organizational skills were described within the context of the acute care setting and were referred to as the registered nurse's ability to manage workflow. The importance of workflow management for stress tolerance was discussed by participant J, who stated:

> …when I think of stress tolerance I think of workflow. A lot of nurses have a hard time managing their workflow, especially when a lot, or things come up...You really have to be able to manage the stress you are given, in any shift.

Participant I also described workflow management as a feature of stress tolerance that impacted safety:

> They [nurses] are proactively looking at their workflow or even environment and seeing what could cause disruption to my workflow, plan for that, and then they are also continuously evaluating that…and then adjusting the workflow based on that. And then asking for help as needed…So they are setting themselves up to have a workflow and environment where they are safe and not going to be highly likely to have emotions that could overtake their safety or their patients.

In addition, this example highlighted how self-awareness is used by registered nurses to know when to ask for help as a way to manage workflow and stress tolerance.

Stress tolerance was one of the four essential emotional-social intelligence skills identified for registered nurse role performance. The working environment was an important contextual factor in participants' descriptions of why they chose stress tolerance. Furthermore, situations encountered and how stress was effectively managed were specific to the role of the registered nurse. Consistent with the definition of stress

tolerance provided to participants, several examples of how nurses were able to constructively and effectively manage emotions were described. Stress management techniques included delegation, assertiveness, and workflow management. Participants reported emotional self-awareness as an underlying skill that improved stress tolerance.

Flexibility. The third theme for research question one was flexibility. Flexibility was defined for participants as the "ability to adapt and adjust our feelings, thinking, and behavior to new situations and conditions" (Bar-On, 2006). This skill was identified as essential by six participants. Of these participants, three were from urban hospitals and three from rural hospitals. The term flexibility or flexible was coded in-vivo 18 times.

Flexibility was identified as an essential factor for role performance, specific to the rural hospital setting, by two participants. For example, participant C stated nurses "have to be able to do multiple things, different things, especially in a critical access [rural hospital], scheduling. So many things to be flexible about. As well as the different kinds of patients and personalities." Additionally, participant B stated, "I'm sure it's this way in every hospital, but in a small hospital we have such a diverse group of patients that we have to be flexible…because of maybe age differences, because of maybe, um, the different types of patients we take care of." The diversity of patients was in reference to the variety of diagnoses and ages that nurses may provide care for in a rural hospital. Findings supported that flexibility for successful role performance in the registered nurse included the ability to think through a variety of patient conditions and situations.

Adaptability to situations, as part of flexibility, was important regardless of hospital size and setting. Consistent with the definition of flexibility provided, participant H stated "to adapt and adjust based on situation and feelings…it's [flexibility] up there high." Likewise, participant J affirmed "…you have to have the ability, just as it

[emotional-social intelligence skills checklist] says, to be able to adapt to whatever situation is going on." Furthermore, participant G described why they chose flexibility as:

> …constantly having to adapt. Every room is a different situation, different people coming in – people on the unit, family members, and being flexible is super important. And I see the most success out of nurses who are able to do that flexibility and able to go between, uh, different situations and address them accurately and manage that and move on to the next one.

The thinking, feeling, and behavioral adjustment needed for the variety of situations and conditions encountered by the nurse was important for success. In contrast to stress tolerance, which focused on the management of emotions, flexibility included the thinking process and behaviors of the registered nurse.

Consistent with the definition of flexibility provided, participants described situations which required flexibility of feelings, thinking, and behaviors in regards to patient care. For example, participant G stated:

> You can have one patient who is actively dying and you have another patient that has their whole family in there. Um, our situations day-to-day and room-to-room are so varied…Okay, now I've got, I've kind of addressed my own internal struggles with this situation and I've done the best I could. I've cared for this patient, he's comfortable, and everything like that. And then, you know, going to the next room essentially putting on a happy face, you know. And, getting to know the next patient and, and what we're doing for them and what their health situation is and trying to manage that too, so.

The acute care registered nurse was described as needing to have the ability to quickly adapt their thinking, feeling, and behaviors to successfully meet the needs of all assigned

patients during a shift. Participant E also described the variability of situations a

registered nurse encounters that requires flexibility as follows:

> …it is stressful having things thrown at you. Where you have procedures and a
>
> patient who's having vitals that are not the best all at the same time and you are
>
> just trying to manage and maybe delegate to other people what needs to get done.

It was clear that the environmental context and situations encountered were unique to the

role of the registered nurse and the acute care setting in the examples provided by

participants.

Flexibility was one of the four essential emotional-social intelligence skills

identified as important for registered nurse role performance. There was evidence to

support the acute care setting determined the need for flexibility in both rural and urban

hospital settings. It was clear that registered nurses used flexibility to adapt thinking,

feeling, and behaviors frequently when providing patient care. The descriptions of

flexibility were consistent with Bar-On's (2006) definition that was provided to

participants.

Problem solving. The last theme identified for research question one was

problem solving. The definition of problem solving provided to participants was the

"ability to effectively solve problems of a personal and interpersonal nature" (Bar-On,

2006). Problem solving was identified as an important emotional-social intelligence skill

by five participants. Of these participants, three were from rural hospitals and two were

from urban hospitals. The emotional-social intelligence skill problem solving was coded

in-vivo 16 times.

Problem solving was described by participants as being able to use critical

thinking. For example, participant C stated that problem solving "goes with critical

thinking." Additionally, participant C emphasized the registered nurses' ability to be "able to critically think and know what to do for the next step is important." The ability to think forward and anticipate was further described by participant E who stated, "you have to reflect on the situation and think through, um, exactly what is going on. What facts do you [the nurse] have…[about the] situation." Specific to nursing, problem solving was described as using clinically relevant information to plan patient care.

Effective problem solving was described as employing patient-centered care and establishing mutually agreed upon patient goals within the context of acute care nursing. For example, participant I stated:

When they [nurses] are using problem solving, they [nurses] are evaluating the situation and asking that person or patient what their goal is. So they [nurses] are not imposing their goal for the situation. Um, and then they [nurses] are coming up with maybe a couple different options to evaluate and then move forward with one of them. Um, and also in that proactively trying to mitigate any risks associated with the problem solving ideas they come up with.

The complexity of effective problem solving was evident in the need for registered nurses to anticipate patient outcomes. On the contrary, the registered nurse who lacks problem solving was described as being task-oriented. In an example that describes ineffective problem solving, participant I stated, "they're [nurses are] very task-oriented sometimes. And sometimes don't have the ability to problem solve their way through [a situation]…They [the nurses] just get kind of stuck."

The urgency of problem solving needed at times was identified by participant F, "especially in acute care…you have to be able to quickly problem solve things to be able to take care of your patients." The efficiency in which the registered nurse is able to make

appropriate judgments can be an important aspect of patient care. This is of particular importance in acute care where patient conditions can change quickly and patient turnover is frequent.

There was not enough evidence to distinguish between personal and interpersonal problem solving as noted in the Bar-On (2006) definition. Problem solving was described primarily in reference to patient care situations (see Figure 2). The nurse-patient relationship was described as an interpersonal relationship with collaborative goal setting. However, the registered nurse also used critical thinking, an independent cognitive process, during patient care. In addition to problem solving being described as important for patient care, participant G included "staff-to-staff problem solving or staff-to-patient problem solving, or staff-family, or physicians, all that" and concluded that problem solving "definitely is a very good skill to have."
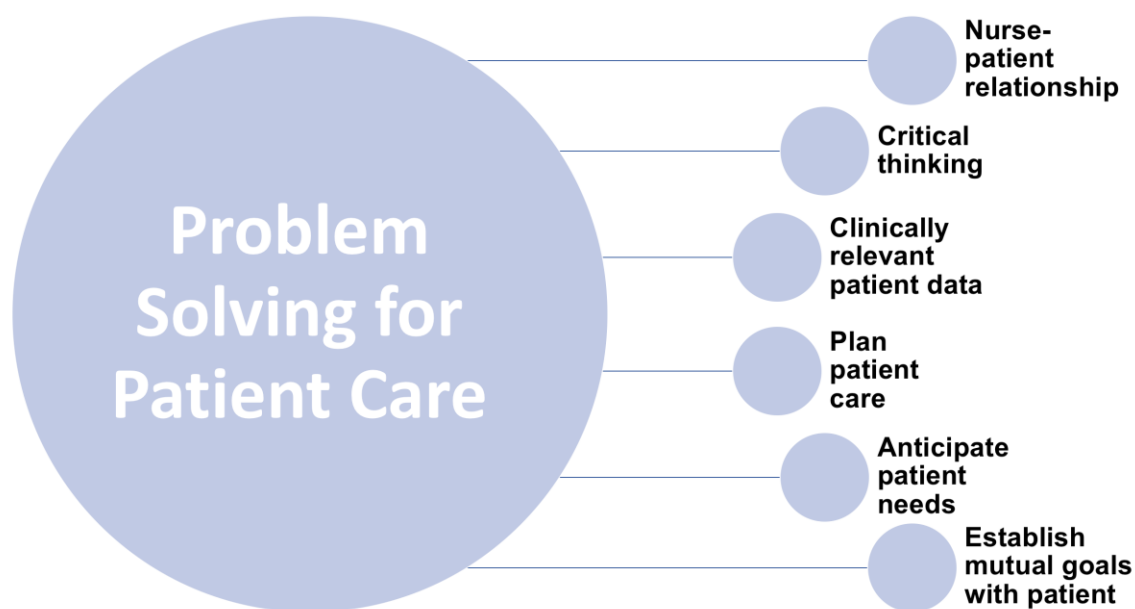

Figure 2. Characteristics of problem solving for patient care described by participants

Problem solving was identified by participants as an essential emotional-social intelligence skill. Findings suggested that problem solving for the registered nurse

included the use of critical thinking to make decisions about patient care. The characteristics of effective problem solving included establishing a therapeutic nurse-patient relationship and using patient data to effectively plan care, all the while anticipating patient responses. The Bar-On (2006) definition of problem solving provided was not clearly supported by participant responses. Participants provided specific details of problem solving by the registered that were not accurately represented by Bar-On (2006). In particular, participants described the interpersonal characteristics of the nurse-patient relationship. Therefore, the personal aspect of problem solving was not represented as defined by Bar-On (2006).

Essential emotional-social intelligence skills. Axial coding was used to examine the actions, interactions, and emotions that identified the essential emotional-social intelligence skills. It was common for participants to explain a relationship between skills identified, for example a supporting role or interconnectedness (see Figure 3).
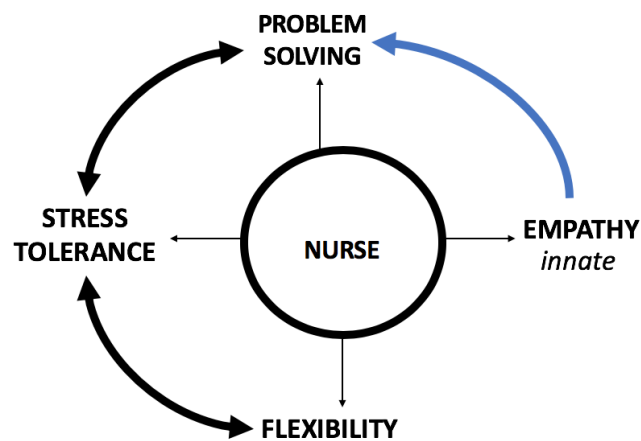

Figure 3. Relationships between the essential emotional-social intelligence skills

Empathy was described as an innate trait by all participants. It was suggested that empathy improved problem solving. Participant F described a connection between stress tolerance, problem solving, and empathy: "So trying to problem solve what happened,

what's going on…there's a lot going on so you are trying to manage all that and then, you really do have the empathy for what happened and trying to figure out how to help this person." Furthermore, participant J described what she observed in nurses who use empathy, "I don't hear negative comments about another person or situation. They instead kind of use the information about where the patient [is]…[and] assess where they are at, and then kind of come up with a plan with how to best work with that person or patient." This statement indicated that the registered nurse planned care based on information about the patient.

Descriptions of flexibility and stress tolerance were similar, particularly in regards to workflow management. Four participants chose both flexibility and stress tolerance as essential emotional-social intelligence skills. Therefore, the ability for the registered nurse to be able to mutually adapt and manage stress was important. For example, participant E had already identified interpersonal relationship and stress tolerance as top emotional-social skills, and went on to state:

> I'm kind of going in between the empathy and flexibility. Cause to be a nurse you have to be empathetic for the patients, but you have to be flexible because you make a plan and like this kind of what the day is going to look like…I think that flexibility goes with the stress tolerance and in a way that could be wrapped into one.

It was common for participant descriptions and observations of the use of the essential emotional-social intelligence skills to overlap.

The four themes identified as essential emotional-social intelligence skills for nursing were empathy, stress tolerance, flexibility, and problem solving. These skills were each represented by at least more than half of the participants in this study. The use

of these skills was described and observations stated. In some cases, a connection

between two or more emotional-social intelligence factors was identified.

In addition to identifying the essential emotional-social intelligence skills for

nursing, it was important to understand how these skills are developed. Participants were

asked to share what factors they thought influenced the development of emotional-social

intelligence skills in nursing. The development of emotional-social intelligence skills was

also addressed in this study and will be discussed.

Research Question Two: Emotional-Social Intelligence Skills Development

The second research question in this study was, "How are emotional-social

intelligence skills developed in nursing?" The development of emotional-social

intelligence skills was identified by four themes and two sub-themes based on the number

of coded segments (see Table 10). The themes were: mentor and role model; coach and

debrief; engagement; and innate. The development themes and sub-themes were defined

based on participant descriptions (see Table 10).

Table 10

Emotional-Social Intelligence Development Themes and Definitions

Frequency of Coded Segments	Theme	Definition
9	Mentor	An experienced registered nurse who serves as a trusted counselor or guide for another registered nurse.
5	Role Model	A registered nurse whose role performance behavior is imitated by others.
9	Coach	One who instructs or trains registered nurses to develop emotional-social intelligence skills
5	Debrief	A discussion of the emotional-social aspects of a nursing practice experience in order to assess and self-reflect upon one's conduct, the outcome, and opportunities for improvement.
9	Engagement	The emotional commitment the registered nurse feels towards the profession, roles, and responsibilities.
8	Innate	Existing in, belonging to, or determined by factors present in an individual at birth (Merriam-Webster Online Dictionary, 2019).

The development of emotional-social intelligence skills was commonly described by participants as a relationship between the registered nurse and another individual, typically a more experienced registered nurse, who served as a mentor, coach, or role model. Participant descriptions of these themes revealed distinguishing characteristics in regard to the role and responsibilities for emotional-social intelligence skill development. The relationships, and ensuing emotional-social intelligence development, were also described in the context of formal educational activities and occurring informally as an outcome of reflection on practice experiences. Formal methods of development included employer-provided orientation and/or nurse residency programs and the nurse manager's responsibility to serve as a coach for the nursing staff they oversee. Informally, development occurred through the observation of exemplary experienced nurses and casual conversations with a mentor. Engagement was identified as an important

gatekeeper for emotional-social intelligence skills development. The theme innate was identified only in association to the emotional-social intelligence skill empathy. The discussion of the emotional-social intelligence development themes is organized by each theme and sub-theme.

Mentor. One method of emotional-social intelligence skill development was mentoring. The definition of mentor in this study was adapted from the Merriam Webster Online Dictionary (2019), which defines a mentor as "a trusted counselor or guide." In this study, a mentor was defined as an experienced registered nurse who serves as a trusted counselor or guide for another registered nurse. Participants typically described the mentor as a formal relationship between a new graduate and an experienced nurse. For example, participant H stated that in her hospital, a formal mentor is assigned and new nurses "get paired up with a nurse." Several participants reported formal orientation processes that included the use of mentors for new graduates.

Effective mentoring was described as a trusting relationship between the mentor and mentee. Meetings between new graduates and their mentor provided a time for emotional reflection and development. Participant J described the mentor as someone to learn from and as someone who can help with development of emotional-social intelligence skills through conversation:

> I think just talking through those situations with the nurse [mentee]…even if it's a negative situation, focusing on, um, the strengths that they do bring to the team and the areas that we want to work with them on to develop them. If you don't have a leader within your team to be your mentor or your person to learn from, that can obviously have a negative impact.

Additionally, participant E described a situation in which a new graduate came to a

regularly scheduled meeting, and "… she [mentee] cried. She [mentee] was just so stressed and just so overwhelmed with everything…[mentor] just reassured her that, you know, you can't compare yourself to anyone else." The trusting role of a mentor was important for registered nurses to develop emotional-social intelligence skills. The relationship provided this new nurse the opportunity to emotionally express herself, providing the mentor information to assess and support the development of stress tolerance.

As a counselor and guide, the mentor was described as being trusted by registered nurse mentees who were seeking support and opportunities to grow through experiences. For example participant B stated, "as a supervisor sometimes, uh, you have to be a coach, a mentor, a teacher. That's the only way they [registered nurse] will grow. Both in skills [psychomotor and cognitive] and in these types of emotional skills." Within the context of the practice environment, it was important that the emotional-social aspect of the registered nurse role was addressed in addition to psychomotor and cognitive skills. For example, mentors supported emotional-social intelligence development of interpersonal relationships and stress tolerance skills by encouraging registered nurse mentees to "not being afraid…or intimidated" and " just trying to help" new graduates through the stress of nursing practice.

Mentors were usually described as being assigned and having formal, regular meetings with mentees. It was also the responsibility of the mentor to seek out and work with the registered nurse mentee. On one occasion, mentoring was described as occurring between registered nurse colleagues. In this example, although the participant used the term 'coach,' the description provided was consistent with this study's definition of mentor. Participant B stated, "[coaching] from fellow coworkers, whether they're

encouraging them to, you know…helping them to grow as well. So it may not be a supervisor, it may be a coworker." Effective mentors were described as being patient, offering encouragement, and providing constructive feedback. Based on the findings, mentoring for emotional-social intelligence skills did not occur independently but in connection with cognitive and psychomotor skills.

A sub-theme to mentor was role model. The mentor and role model were both described as a role fulfilled by a more experienced nurse, which fostered emotional-social intelligence skills development. The mentor and role model were characterized as expert and exemplary registered nurses. Emotional-social intelligence skill development took place through the observation of role models, whereas mentors were often assigned as part of formal orientation processes.

For this study, the role model was defined as a registered nurse whose role performance behavior is imitated by others. This definition was adapted from the Merriam Webster Online Dictionary (2019), which defined role model as "a person whose behavior in a particular role is imitated by others." The role model was described as occurring through the observation of peers. For example, participant B stated "I think some of it [emotional-social intelligence skills] is, they [nurses] see some of that [emotional-social intelligence skills] in their coworkers…they [nurses] want to be like those coworkers, because they [nurses] feel like they [role models] are doing something good." Likewise, participant C described the importance of a team environment for new graduates who, "…will learn from their peers so many of these things [emotional-social intelligence skills]…whether it is good or bad. To see what I [new graduate] don't want to be like or what, how I [new graduate] do want to be." Consistent with the definition of role model, it was evident that role modeling occurred within a particular role, as well as

in the context of the acute care setting.

The practice of using a role model for the development of emotional-social intelligence skills was encouraged by frontline managers. For instance, participant J described using positive role models when working with a registered nurse who may be lacking a particular skill in the following example:

> To help develop that we [frontline nurse managers] look at our high performers on our team and then we [frontline nurse managers] use their [registered nurses'] skills that make them so successful and then try to teach those, you know, to those [registered nurses] who are struggling….“okay, let's talk about what you are doing to be successful and what you can do to emulate some of those skills.”

The registered nurses who successfully demonstrated emotional-social intelligence skills to be imitated were identified by frontline nurse managers. These nurses were recognized as role models.

Participants described how they strived to serve as a role model for emotional-social intelligence skills. Interestingly, participants frequently reflected and shared the impact their own role models had on their stress tolerance, flexibility, and interpersonal relationships. These examples emphasized the way in which participants' valued strong role models. For instance, participant B shared her feelings and thoughts after observing her role model demonstrate empathy early in her career: “and I thought, that's what I want to do, I want to be like that [role model]. You know, I want to be respected… because I want to be a good role model for those nurses too.” The passion with which the participant spoke of the role model was stronger here than any other time during the interview. As a frontline manager, this participant wanted to have the same impact that her role model had made on her practice.

As defined and supported by participant statements, it was possible for a registered nurse to be a role model without knowing they are one. Role model was a sub-theme to mentor with the distinguishing characteristic of being informal. Furthermore, role modeling included the observation of a registered nurse who successfully demonstrates emotional-social intelligence skills in practice. On the contrary, a mentor was most often described as a formal relationship. Based on study findings, the registered nurse learns and develops emotional-social intelligence skills through the observation of peers during practice experiences.

Coach. The definition of coach for this study was adapted from the Merriam Webster Online Dictionary (2019), which defined a coach to be "one who instructs or trains." The definition of coach used for this study was one who instructs or trains registered nurses to develop emotional-social intelligence skills. The theme coach was used to describe the responsibility of an experienced registered nurse to provide direct instruction or remediation to develop emotional-social intelligence skills in registered nurses. The most common method used by the registered nurse coach, debrief, was identified as a sub-theme.

As described by participants, the role of coaching included instruction on the emotional-social intelligence knowledge, skills, and attitudes for successful nursing role performance. Specifically, coaching was used to develop positive emotional and social responses to nursing practice experiences. Participant C explained their process for working with a registered nurse on a performance issue consistent with the definition of coaching. In an interaction with a registered nurse that had low stress tolerance, participant C stated:

I bring it forward to…them [registered nurse] and then we try to work through

with them what they can do differently, or some signs I [coach] can give them when they are doing that particular thing [low stress tolerance]. Because they don't even know they are doing it. …they don't even realize it.

Coaching emotional-social intelligence skill development was described as an important aspect of training and instructing acute care registered nurses. Given the interconnection between the cognitive and emotional aspects of nursing care, the examples provided by participants generally included both. For example, participant G stated that emotional-social intelligence development occurs "through orientation…and then as different situations present themselves…conflict resolution and just coaching…[to] walk through scenarios and how to handle things."

Several participants from urban hospitals indicated that coaching registered nurses was an expectation and responsibility of registered nurses in leadership roles at the frontline. For example, participant E stated: "I do coaching. So if they are not upholding standards I can help reinforce what the expectation is." Participant J also described that her role was "…to provide coaching related to any quality events." Coaching was used when the registered nurses' performance fell below the standard of care or in response to an incident report. The act of coaching was described by participant J with respect to timing and setting. This participant provided additional details regarding coaching preferences, as follows:

And I feel better doing coaching in more of a private setting. So kind of planning that out, when is the best time, because obviously we are very busy at the frontlines. And so you are probably going to have a better outcome if you plan the conversation in the conference room at a time when they are caught up…when you coach somebody the expectation of their behavior.

Coaching was described as most effective when provided in a low-stress environment and at a time free from interruption. Coaching in the moment was discussed, as was using coaching for planned learning opportunities. Just-in-time coaching was used to promote emotional-social intelligence development when guiding the registered nurse through new experiences. Planned educational sessions were described as well. For example, several participants reported staff development, staff education, and new nurse orientation that included topics such as stress management, interpersonal relationships, and emotional intelligence.

Coaching was clearly described as emotional-social intelligence development through direct training or planned instructional activities. It was also common for coaching to be used with registered nurses who demonstrated poor role performance. Coaching in the moment was also referenced; however, it was related to role performance and took place one-on-one between the coach and registered nurse. Debriefing was a method coaches used to develop emotional-social intelligence skills and a sub-theme.

Debrief was the only sub-theme to coach. Debriefing was the method of development most frequently used by coaches described by participants. The definition of debrief for this study was a discussion of the emotional-social aspects of a nursing practice experience in order to assess and reflect upon one's conduct, the outcome, and opportunities for improvement. Participant I described debriefing as a process of reflection on practice, as follows:

>…we debrief on a situation when they [registered nurse] kind of self-reflect[s] on what went well, what could have gone better. Those scenarios…I [frontline nurse manager] find that they kind of help and advance them [registered nurse]…talking about what could have gone better.

Similarly, participant J described debriefing as a reflective process gained from experiences that the registered nurse can learn from, "…as you gain experience as a nurse you go through situations that you learn from and you reflect on…taking time to reflect and debrief throughout the day and after certain situations to make sure you are learning and growing." The role of the coach is to provide opportunities for nurses to debrief. For example, participant J stated that it was important to make "time and space to reflect."

Debriefing was described as a process that can occur with several individuals, not just one-on-one, by participant E who stated "…to learn is from us [frontline nurse managers] talking. And like, um, like, at different meetings we might bring up a situation and talk through it. Or even just like on the floor, debriefing-wise on what's going on." Similar to coaching, debriefing included both cognitive and emotional-social factors of nursing practice. Additionally, as part of orientation, there were opportunities for less-experienced nurses to discuss the emotional-social aspects of practice experiences with one another such as stress management techniques, workflow management, and organization. These small-group discussions were moderated by a more experienced nurse who used coaching techniques.

The use of debriefing was frequently used by coaches to develop emotional-social intelligence in registered nurses. It was evident that a key component of debriefing was conversation that included reflection of and knowledge gained from a practice experience.

Engagement. The engagement of registered nurses was described as an important theme for the development of emotional-social intelligence skills. Engagement was defined as the emotional commitment the registered nurse feels towards the profession, roles, and responsibilities. The theme was described in relation to individual responses to

mentors, role models, and coaches. Additionally, the ability to practice self-awareness to accurately reflect on practice was identified as important by participants. The development of emotional-social intelligence skills was influenced by, according to participant B, "how open the person is to receiving, receiving guidance or accepting of emotional skills in general." Participant C described the response to one-on-one coaching conversations and stated that, "it is ultimately them, you know. I tell them, you have two choices: walk out of here and ignore the conversation or try to change." This suggests that the development of emotional-social intelligence skills requires change.

Honest reflection on practice and accurate self-awareness were identified as essential for the development of emotional-social intelligence skills. For instance, participant I stated, "I think they [registered nurses] have to be self-aware and open to receiving feedback and developing those [emotional-social intelligence skills]. It's hard to make someone develop those." An important aspect of engagement was the nurse manager's ability to provide honest and transparent feedback. Feedback was described as providing information about role performance. This included both positive validation and, as participant I stated, " making time and space to reflect on what didn't go well." Additionally, participant J acknowledged that self-awareness can be difficult for some nurses, "but I think it takes a little while to reach that point, you know, to kind of accept where you are and where you want to go. So it can be challenging for those nurses who are not quite there yet." Engagement was dependent upon self-awareness and practice experiences and enhanced further by educational activities and feedback to develop emotional-social intelligence skills (see Figure 4).
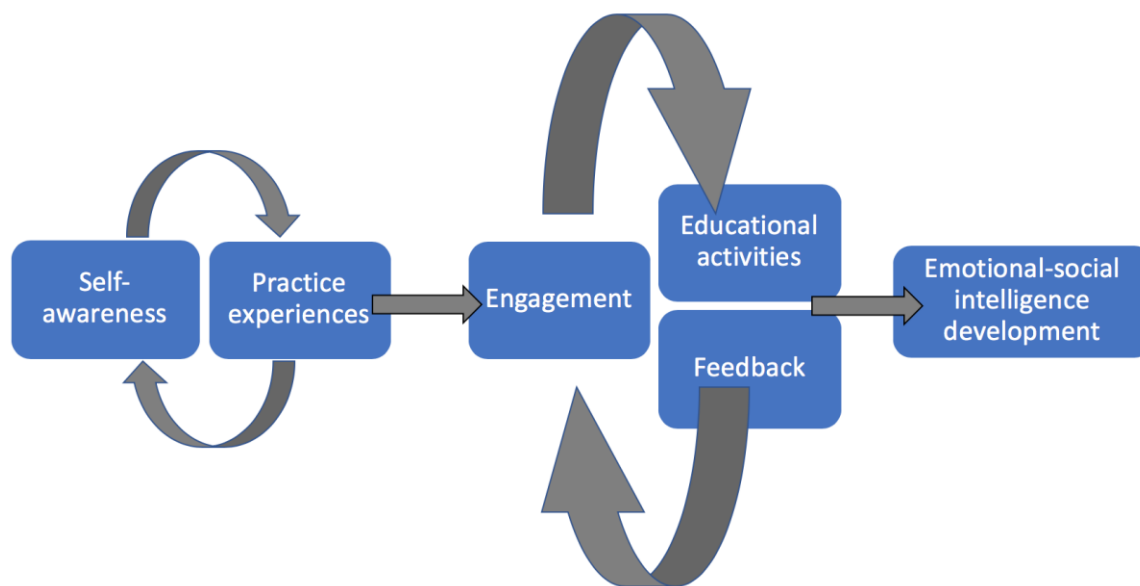
Figure 4. Process of engagement in emotional-social intelligence development

Specific to new graduates, self-awareness was described as important for engagement by two frontline nurse managers. For example, participant F stated that advocating for one's learning is "going to build your stress tolerance because you have more experiences to rely on…it seems like people learn a lot quicker when they do that." Participants discussed how the registered nurses who are more proactive in their growth and development were more successful.

Engagement was identified as necessary for emotional-social intelligence skill development. The ability to practice self-awareness during and in response to practice experiences was an indication of an emotional commitment to the nursing profession. This engagement was employed by registered nurses to seek out and participate in educational activities. Additionally, engagement provided a willingness to observe role models and receive feedback from mentors and coaches.

Innate. Innate was defined as "existing in, belonging to, or determined by factors present in an individual at birth" (Merriam-Webster Dictionary, 2019). The theme innate

was uniquely linked to the emotional-social intelligence skill of empathy. For example, participant F shared that "some of the emotional intelligence is, is what you were born with…to truly have empathy I feel like that starts at a very young age. It is hard to teach empathy." Several other participants from rural and urban hospitals used the term innate when describing the development of empathy. Participant B stated, "I feel like empathy is not really something that can be taught. I feel like that is something that is probably more innate." Likewise, participant I stated, "I don't know that I've had to do a whole lot of work one-on-one trying to impact someone's empathy…[it's an] innate trait that goes with nursing."

Empathy was described as a natural trait with an opportunity to further develop by participant G, who stated, "I think as nurses we're naturally empathetic, and, and really tune into a lot of emotions and the emotions of others. Um, so, it's kind of a starting base foundation to build on." Additionally, participants discussed the importance of purpose in the maintenance and growth of empathy. Participant J stated, "with like empathy what comes to mind is kind of, connection to purpose…reminding them of why they are here. What brought them to nursing." Additionally, participant E found empathy to be innate and fostered with deeper understanding: "…they say compassion isn't something you can learn, it's just something you already have. And so to build, like, the empathy aspect of it, you like, have to have the why behind it."

Innate was a unique theme as it only applied to the development of empathy. Decreases in empathy were reported by participants as occurring in experienced nurses and as a manifestation of burnout. Development activities to increase empathy included direct instruction and trainings. Despite its innate nature, it was identified that empathy can be further developed through educational activities, practice experiences, and

relationships with colleagues.

Elements of emotional-social intelligence skills development. Through the process of axial coding, the concepts of emotional-social intelligence skills development were related to each other and process was brought into the analysis. The elements were identified out of responses from participants as to how essential emotional-social intelligence skills were developed. The development of emotional-social intelligence skills was described as being innate and occurring through interpersonal interactions, educational activities, and intrapersonal characteristics. Engagement was a necessary intrapersonal output that served as a conduit for emotional-social intelligence development through practice experiences and input from mentors and coaches (see Figure 5).
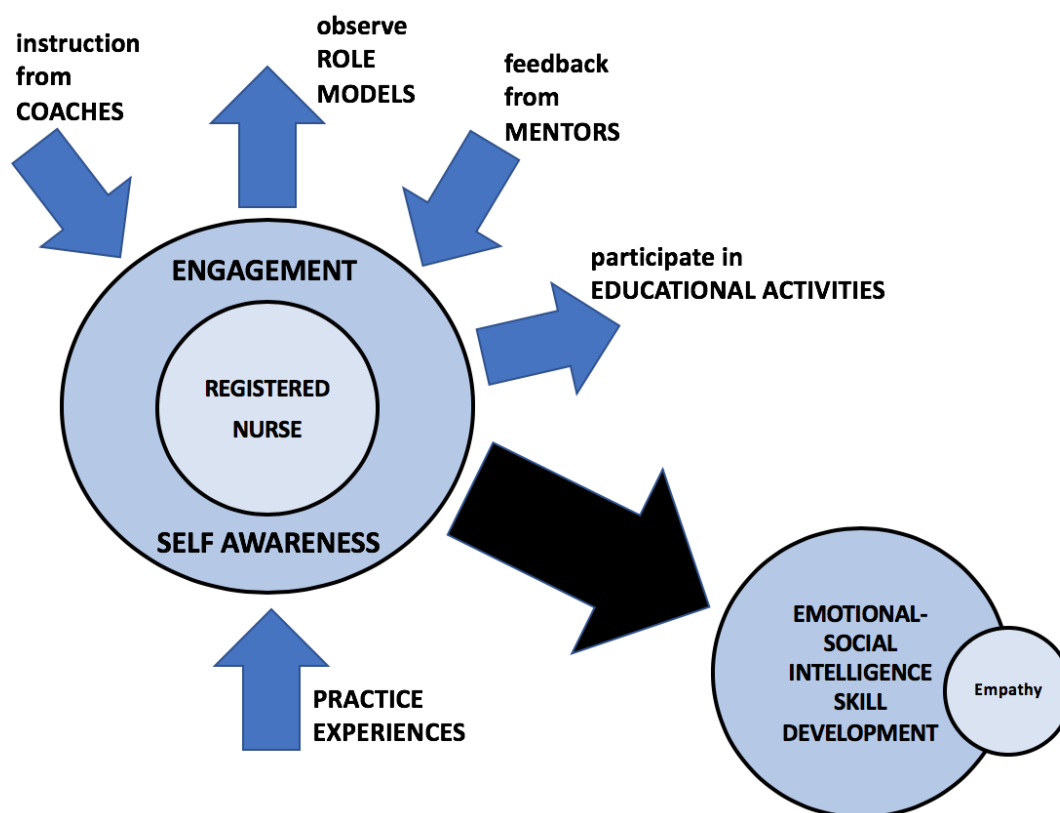

Figure 5. Inputs and outputs for emotional-social intelligence skills development in nursing

Engagement was described as being receptive to emotional-social intelligence development. Furthermore, the engaged registered nurse was willing to seek out and participate in relationships and education for the purpose of learning and professional growth. Engagement was important for further development of empathy, as well as other acquired emotional-social intelligence skills.

The context for emotional-social intelligence skill development was the acute care setting and involved a combination of practice experiences, educational activities, and engagement with mentors, role models, and/or coaches. Exchanges with other individuals for the purpose of development were described as taking place through formal relationships and via observation. Self-awareness was the precursor for engagement. Engagement in educational activities such as workshops and professional development sessions, as well as feedback, resulted in emotional-social intelligence development.

Results Summary

In conclusion, data analysis showed that the essential skills of emotional-social intelligence were: empathy, stress tolerance, flexibility, and problem solving. These skills were identified by participants as the most important or essential based on the Bar-On Model of Emotional-Social Intelligence (2006). The participants gave examples of how the skills are used in nursing practice that were consistent with the definitions provided. Furthermore, examples of successes and challenges in role performance related to emotional-social intelligence factors were verbalized by participants. Connections between emotional-social intelligence skills were also communicated.

There was data to support that emotional-social intelligence is both innate and developed with experience. Several factors influence the development of emotional-social intelligence skills in the registered nurse. This study found that development

primarily occurred as a result of practice experiences and through connections with more experienced registered nurses. The relationships and connections described by participants were mentors, role models, and coaches. Debriefing practice experiences was a common method used by coaches. Engagement was considered an influential factor in the development of emotional-social intelligence skills. By engaging with more experienced nurses through interpersonal relationships, the novice registered nurse developed emotional-social intelligence. Empathy was found to be an innate emotional-social intelligence skill with the opportunity for further development.

CHAPTER V: DISCUSSION AND SUMMARY

This grounded theory study explored emotional-social intelligence skills used and developed in nursing practice from interviews with frontline nurse managers representing six hospitals in southeast Nebraska. An interpretation of results correlated to the literature and correlated to the Bar-On Model of Emotional-Social Intelligence (2006) were examined for each research question. An emerging model was established based on findings from this study. The Minster Five-Factor Model of Emotional-Social Intelligence for Nurses will be explained. The development process of emotional-social intelligence skills in nursing are discussed based on study findings. Limitations and implications for nursing education and future research are discussed.

Research Questions and Interpretation

The purpose of this study was to explore the most important or essential emotional-social intelligence skills for nursing and how these skills are developed. Based on literature review findings, the approach to this study was unique as it sought out to determine the essential emotional-social intelligence skills for nursing. Current research in nursing primarily examined overall emotional intelligence using existing models, correlations, and outcomes. Therefore, findings were generally reported as overall emotional intelligence scores. Based on the literature, there was evidence to support further emotional-social intelligence research in nursing. This study specifically examined the specific skills of emotional-social intelligence most important for nursing. Since research findings focused on overall emotional-social intelligence scores and this study explored specific emotional-social intelligence skills, it was difficult to validate all findings from this study.

It is imperative for nursing to identify the essential emotional-social intelligence skills as a means for addressing the affective skills gap between theory and practice. Research demonstrates that overall higher emotional intelligence in nurses is correlated with safer and more effective patient care (Adams & Iseler, 2014; Schub & Smith, 2017). In nursing education, emotional intelligence is correlated with improved academic success, higher engagement, and retention (Codier & Odell, 2014; Sharon & Grinberg, 2017). Because of the numerous non-nursing emotional-social intelligence measurements and outcomes reported in research, it was important to determine the most important skills for nursing practice and education. As an initial study to explore the essential emotional-social intelligence skills specific to nursing, additional research is needed to validate all findings. Findings from this study identified four essential emotional-social intelligence skills for nursing and how emotional-social intelligence skills are developed. Based on the Bar-On Model of Emotional-Social Intelligence (2006), supporting research, and findings from this study, an emerging emotional-social intelligence model for nursing was developed.

For this study, the Bar-On Model of Emotional-Social Intelligence served as a theoretical framework. This model was selected for two reasons. First, the meta-factors and sub-factors of emotional-social intelligence closely aligned with role and responsibilities of the registered nurse. Second, the model has been operationalized by the Emotional Quotient Inventory (EQ-i) with proven reliability and validity. The essential emotional-social intelligence skills identified in this study were consistent with the Bar-On Model and EQ-i. All participants in this study identified essential emotional-social intelligence skills based on the Bar-On Model.

The results for each research question and corresponding themes and sub-themes are discussed. The interpretation of the results is illustrated as a process and emerging model. Findings are correlated with the literature, theoretical framework, and the proposed model.

Research Question One: Essential Emotional-Social Intelligence Skills

The first research question for this study was, "What are the essential emotional-social intelligence skills for role performance in practicing registered nurses?" To answer this question, there were four main themes identified from interviews with frontline nurse managers: empathy, stress tolerance, flexibility, and problem solving. The themes were identified based on frequency and the number of coded segments. Furthermore, rich descriptions provided a clear understanding of the themes. The analyzed data from each theme are discussed and correlated with current research findings. Additionally, results from this study are examined in relationship to the theoretical framework of the Bar-On Model of Emotional-Social Intelligence (2006).

Emotional intelligence in nursing research has primarily used existing measures of emotional intelligence based on non-nursing models. Despite the numerous studies on the topic of nursing and emotional intelligence, findings lacked reliability. Findings inconsistently report a variety of measurements for overall emotional intelligence scores, and a number of sub-scale measurements. As a result, it was difficult to establish unequivocal support for the emotional-social intelligence skills essential for nursing practice based on existing research. Based on this, there was a need to explore emotional-social intelligence in nursing.

This study was the only one that could be located that explored the essential emotional-social intelligence skills for nursing. There is strong evidence that nurses need

emotional-social intelligence, which is supported in the literature. However, there is limited evidence to support the most important emotional-social intelligence skills for nursing. Further research is necessary to support the essential emotional-social intelligence skills identified in this study and how they are developed. The theoretical framework served as an appropriate guide and the Minster Five-Factor Model of Emotional-Social Intelligence for Nursing was developed and is based on the work of Bar-On (2006).

Empathy. Empathy was the emotional-social intelligence skill most frequently reported in the literature. Likewise, empathy was the only skill identified by all participants in this study as essential for the registered nurse. Empathy was also described as an innate trait by participants. The literature supports findings from this research study that empathy is an innate trait and an essential emotional-social intelligence skill for registered nurse role performance (Cerit & Beser, 2014; Cleary et al., 2018; Hen & Goroshit, 2011). For example, empathy and understanding were significantly associated with higher emotional-intelligence scores in nurses and nursing students (Cleary, et al., 2018; Štiglic et al., 2018).

Empathy was defined for participants as the "ability to be aware of and understand how others feel" (Bar-On, 2006). The interpersonal skill of empathy was primarily described by participants as an emotional experience that takes place between the registered nurse and patient. Findings from this study clearly supported the congruence between characteristics of empathy described by participants and the definition of empathy from Bar-On (2006). Participant descriptions of empathy included awareness and understanding of others' emotions. For example, participant B described empathy as, "you [registered nurse] have to be able to put yourself [registered nurse] in

the patient's position so that you understand what their [patient] situation is."

Several participants discussed how empathy related to patient care. For example, participant B stated that empathetic actions "affect how you care for [patients]." Findings from this study also described how empathy improved patient care. For instance, participant J stated:

> Their [nurses] quality of care is impacted because they truly care about that patient, no matter why they're here, what their circumstances are, what happened. And you'll see that they are more focused on their patients. They spend more time with their patients, and all of that. All of the qualities that go with empathy allow the patients to have better outcomes.

Similarly, the literature described how nurses use empathy to plan nursing care (Hutchinson, Hurley, Kozlowski, & Whitehair, 2018; Kooker et al., 2007). In a qualitative study that examined emotional intelligence in practicing registered nurses, Kooker, Shoultz, and Codier (2007) found nurses with empathy were able to recognize patient needs. These competencies, among others, were from the domain of social awareness and contributed to patient outcomes (Kooker et al., 2007). Furthermore, in an integrated review, Cleary et al. (2018) reported high levels of emotional intelligence facilitated empathy and a better understanding of the patient perspective in undergraduate nursing students.

Participants in this study felt empathy enhanced problem solving, another emotional-social intelligence skill. Participants reported registered nurses used empathy to problem solve and make decisions regarding patient care. For example, participant F observed the following situation: "they [new graduate] really noticed that this patient is frustrated because they have been doing this [painful treatment] for many, many

weeks…they [registered nurse] honed in…and helped that patient relax" with a nursing intervention. The strong link between empathy and problem solving in this study was supported by the literature. Findings from Hutchinson, Hurley, Kozlowski, and Whitehair (2018) supported empathy as an important factor in problem solving methods used by nurses. Hutchinson et al. (2018) concluded that both emotions and cognition are important for clinical reasoning. Generally speaking, in an update of the emotional intelligence ability model, Mayer, Caruso, and Salovey (2016) reported that specific forms of problem solving are used with emotional intelligence. The Bar-On (2006) theoretical model, however, did not fully explain connections between the factors of empathy and problem solving in emotional-social intelligence found in this study.

In the literature, the emotional-social intelligence skill of empathy was rarely reported independent of overall emotional intelligence scores. The majority of models and measurements reported in the research included empathy as a sub-measurement of emotional intelligence. For example, Kooker, Shoultz, and Codier (2007) reported social awareness as the most commonly demonstrated emotional intelligence domain in professional nursing practice. In this qualitative study of 16 nurses, the social awareness domain included empathy and recognition of patient needs. Additionally, common emotional intelligence models and measures reported in nursing include empathy as part of overall emotional intelligence (Aradilla-Herrero & Tomas-Sabado, 2011).

Empathy was the strongest essential emotional-social intelligence skill theme identified in this study. There is robust evidence to support empathy as an essential emotional-social intelligence skill for nursing. Empathy was frequently cited in the literature as a significant factor for emotional intelligence and performance outcomes. All participants in this study identified empathy as an essential emotional-social intelligence

skill. Furthermore, there was evidence to support findings from this study that empathy enhanced problem solving in nursing practice. Empathy is clearly an essential emotional-intelligence skill for nursing that promotes problem solving.

Stress tolerance. The second theme and essential emotional-social intelligence skill identified by participants in this study was stress tolerance. Stress tolerance has not been researched individually as an essential emotional-social intelligence skill in nursing. However, stress tolerance was frequently referenced in emotional intelligence nursing research. There was strong evidence to support stress tolerance had a positive influence on overall emotional intelligence scores in nursing (Benson et al., 2012; Carvalho et al., 2018; Görgens-Ekermans & Brand, 2012; Grant et al., 2014; Por et al., 2011). Because stress tolerance was related to higher overall emotional intelligence, the literature validated findings from this study of the importance of stress tolerance for role performance in nursing.

Stress tolerance was discussed by most participants in relationship to the work environment of the acute care registered nurse. The acute care setting was described as fast-paced and unexpected at times. Specifically, participants talked about high patient turnover, patient acuity, managing workflow, and anticipating patient needs. Additionally, participants commented on the increasingly complex role of the registered nurse in acute care settings, as well as the importance of being able to adapt and manage workflow. Consistent with participant descriptions of the working conditions, Bulmer Smith, Profetto-McGrath, and Cummings (2009) concluded that emotional competencies were needed to effectively deal with chaotic working environments. Furthermore, Por et al. (2011) reported that perceived stress had the strongest impact on emotional intelligence and explained 15.5% of the variance in emotional intelligence scores.

Consistent with the literature, this study also found that the high stress level in acute care nursing practice meant registered nurses needed to be able to effectively manage stress.

The characteristics of stress tolerance described by participants were congruent with the theoretical model. Stress tolerance was defined by Bar-On (2006) as the ability "to effectively and constructively manage emotions." In an example of stress tolerance, participant C stated, "I see one gal who is not good at this [stress tolerance] that works here. So, if we add a surgery on or things change, or her role changes for the day she does not handle that real well." When asked to further describe observations, the participant verbalized, "Her expressions when things change, her voice level goes up. She just kind of goes around in circles…gets grumpy about it and then she acts like everything is a big deal." This example demonstrated the registered nurse's inability to manage emotions effectively and constructively. Positive examples of stress tolerance described by participants included managing workflow and using self-awareness to manage stress. The literature supported the benefit of emotional intelligence on nurses' ability to adapt to stressful situations (Aradilla-Herrero & Tomas-Sabado, 2011).

Overall, research findings rarely reported connections between emotional-social intelligence skills. This study found two essential emotional-social intelligence skills were interconnected with stress tolerance. Participants reported a relationship between stress tolerance and the Bar-On (2006) emotional-social intelligence skills of problem solving and flexibility. The Bar-On Model (2006) did not address connections between stress tolerance, problem solving, and flexibility. However, the Bar-On Model (2006) does support a connection between problem solving and flexibility, which are both categorized under the model's adaptability meta-factor. Furthermore, adaptability and flexibility were also found to be related to cognitive thinking processes such as problem

solving (Kaya et al., 2017; Tharani, Husain, & Warwick, 2017).

Findings from this study found a mutual relationship between the emotional-social intelligence skills of stress tolerance and problem solving. For example, participant J stated how stress tolerance is impacted by poor problem solving skills as follows: "[if] you don't have good problem solving skills…I feel like you're kind of setting yourself up…[and] not able to handle the situations that you are given." Likewise, participant I described characteristics of problem solving to effectively manage stress: "they [nurses] are proactively looking at their workflow or even environment and seeing what could cause disruption…setting themselves up…and not going to be highly likely to have emotions that could overtake." The literature supported the relationship between stress tolerance and problem solving.

Grant et al. (2014) found that increased levels of emotional intelligence were correlated with a decrease in psychological distress over time in social work students. Furthermore, students in this study clearly reported the use of emotions to facilitate judgments and decision making (Grant et al., 2014). In nursing, Fujino et al. (2015) explored characteristics of role performance among nurses with high emotional intelligence. In this study, nursing performance was most strongly associated with the emotional ability to withstand changes in circumstances (Fujino et al., 2015). In interviews with registered nurses, Hutchinson et al. (2018) identified emotional and technical perspectives, including situational awareness and emotional reasoning, in clinical decision making. Research findings supported conclusions from this study that stress tolerance and problem solving are connected.

Although not identified as a theme in this study, there was strong evidence to support self-awareness is an important emotional-social intelligence skill in nursing

practice. Participants reported self-awareness was necessary for registered nurses to effectively manage stress. For example, participant I stated, "…if they don't have that self-awareness of the emotions they're feeling and the stress level…[they] can't manage them." Participants described self-awareness as a pre- or co-requisite for successful stress tolerance. This was consistent with the Bar-On (2006) definition of self-awareness as the ability "to accurately perceive, understand, and accept oneself" (p. 23). A lack of self-awareness led to a negative impact on, for example, communication, workflow, and well-being. Positive uses of self-awareness verbalized in regards to stress tolerance included optimism, teamwork, and attentiveness to self-care. Based on the review of literature, there was limited evidence to support self-awareness was an adjuvant emotional-social intelligence skill to stress tolerance. Findings from Hutchinson, Hurley, Kozolowski, and Whitehair (2017) suggested clinicians who were more emotionally aware and able to regulate their own emotions were more adept at managing difficult situations.

The findings from this study, in conjunction with existing research, confirmed stress tolerance was an essential emotional-social intelligence skill for registered nurses working in the acute care setting. Although stress tolerance has not been clearly examined as an essential emotional-social intelligence skill for nursing, there was evidence to support it as an important part of overall emotional-social intelligence. Additionally, there was evidence to support a connection between stress tolerance, problem solving, and flexibility. Self-awareness was an emotional-social intelligence skill identified in this study to be an important precursor for effective stress tolerance.

Flexibility. Flexibility was the third most frequently occurring theme identified by participants in this study. Participants described flexibility in significant detail in relationship to feelings, thinking, and behavioral responses to the conditions of the acute

care environment. These findings were consistent with the Bar-On (2006) definition of flexibility as the "ability to adapt and adjust our feelings, thinking, and behavior to new situations and conditions" (p. 23). For instance, participants described how the registered nurse employed emotional and social adaptation to different patient diagnoses and changes in patient condition. Like stress tolerance, this essential skill was explained within the context of the working environment and unique to the role performance of the registered nurse.

In the Bar-On Model (2006), flexibility is a sub-factor of adaptability. Flexibility was infrequently referenced in the literature separately from overall emotional intelligence and/or measures of adaptability. Adaptability is included in the discussion because it is connected to flexibility based on the theoretical model. In the case of flexibility, even looking for evidence from a higher-level perspective of adaptability yielded limited support. The ability to be flexible and adapt was reported in the literature from a broader perspective. The majority of emotional intelligence models employed in the research reviewed included flexibility and/or adaptability as a component of overall emotional intelligence scores. For example, Aradilla-Herrero and Tomas-Sabado (2011) highlighted that one of the benefits of emotional intelligence in nursing included adaptation to stressful situations. Furthermore, in a qualitative study of practicing registered nurses, self-control and adaptability were identified as one of four emotional intelligence domains (Kooker et al., 2007). The literature supports adaptability and flexibility as key factors in nursing practice.

Findings from this study supported a relationship between flexibility and stress tolerance. Data analysis of the flexibility theme validated findings from the stress tolerance theme; namely, that a relationship exists between these two essential emotional-

social intelligence skills. There was evidence to support that the connection between stress tolerance and flexibility is reciprocal. The examples of flexibility provided by participants demonstrated a strong link to stress tolerance. Participants reported that the nurse regularly operates in stressful situations and with numerous responsibilities. For example, participant C stated:

> …[to] just manage the stress and the environment. It's just crazy, you know. Flexibility, [registered nurses] have to be able to do multiple things, different things…scheduling. So many things to be flexible about, as well as, the different kinds of patients and personalities."

Findings from the review of literature did not reveal a direct connection between the emotional-social intelligence skills of flexibility and stress tolerance.

There was a paucity of evidence from the review of literature to support flexibility as an essential emotional-social intelligence skill. The descriptions of flexibility were consistent with the theoretical model, as an adaptability factor. However, the Bar-On Model (2006) did not account for the relationship between stress tolerance and flexibility as identified by participants in this study. Flexibility and problem solving are both adaptability factors according to the Bar-On Model (2006). In the observations provided by participants, there was evidence to support a relationship between flexibility and stress tolerance.

Problem solving. Problem solving was the fourth theme identified by participants as an essential emotional-social intelligence skill. The definition of problem solving provided to participants was the "ability to solve problems of a personal and interpersonal nature" (Bar-On, 2006). Participants described problem solving consistent with the Bar-On (2006) definition. However, the definition did not accurately represent all facets of

problem solving for nurses working in the acute care setting identified by participants in this study. The characteristics of problem solving, as stated by participants in this study, were heavily embedded in the context of nursing. This included aspects of clinical reasoning such as critical thinking and the use of clinically relevant patient data to anticipate and plan care. Additionally, the nurse-patient relationship was emphasized by participants. The theme of problem solving as defined by Bar-On (2006) did not fully represent how the emotional-social intelligence skill manifested in nurses and the acute care setting.

Participant statements provided evidence that the registered nurse demonstrated additional skills not captured by the Bar-On (2006) definition of problem solving. Most frequently, participants used the phrase "critical thinking" to describe problem solving. Problem solving as defined by Bar-On (2006) focuses on the ability to solve problems; whereas critical thinking includes analysis and evaluation for decision making (see Table 11).

Table 11

Comparison of Problem Solving and Critical Thinking

Problem Solving	Critical Thinking
"ability to effectively solve problems of a personal and interpersonal nature" (Bar-On, 2006).	"the objective analysis and evaluation of an issue in order to form a judgment" (Oxford Dictionary, 2019).

Participants' observations of problem solving stated in this study indicated critical thinking was part of managing workflow and making decisions about patient care. The following is an example from participant E of actions and thought processes that occur as the registered nurse uses critical thinking to problem solve:

…they might delegate…cause this is more important…and then you [the

registered nurse] just prioritize what do I [registered nurse] absolutely need to do

now and what can I come back and do. What is the most vital thing to get done.

There was limited research that directly examined problem solving as an emotional-social

intelligence skill in nursing. Problem solving was rarely referenced verbatim in the

literature. As in this study, the literature reported problem solving methods within the

context of nursing. For example, there was empirical evidence for the connection

between critical thinking, as a component of problem solving, and emotional intelligence

(Kaya et al., 2018). The literature also supported a correlation between emotional

intelligence and critical thinking in student nurses. Kaya et al. (2017) reported a positive

correlation between measures of emotional intelligence and critical thinking disposition

between the beginning and end of an academic year.

Participants in this study indicated a supportive relationship between the

emotional-social intelligence skills of empathy and problem solving. Participants reported

empathy positively impacted problem solving and critical thinking for work-related

decisions. Consistent with findings from this study, Hutchinson et al. (2018) concluded

that "engaged emotions trigger, inform and enhance the process of clinical decisions" (p.

e607). Hutchinson et al. (2018) specifically examined the use of emotional intelligence in

clinical reasoning among practicing nurses. Findings from this study confirmed research

that supports empathy as an adjuvant to problem solving and critical thinking in nursing

practice. Problem solving, alone and in connection to empathy, was most often described

as critical thinking and in relationship to direct patient care. Therefore, clinical decision

making was explored as an emotional-social intelligence skill for nursing.

The emotional-social intelligence skill of problem solving in nursing was

described as critical thinking and clinical decision making processes needed for optimal

patient care in this study and the literature (Hutchinson et al., 2018; Baxter & Boblin, 2008; Muntean, 2012). As a result, it was clear that Bar-On's (2006) definition of problem solving was insufficient for nursing. As data was analyzed, it was important to maintain integrity with the study design and theoretical model. This included the consistent use of the emotional-social intelligence skills checklist based on the Bar-On Model. Therefore, the emotional-social intelligence skill of problem solving, as reported verbatim by participants, was preserved as the fourth theme identified for research question one. The three other themes idenfitied—empathy, stress tolerance, and flexibility—were also reported from the checklist based on the Bar-On Model. The difference between problem solving and the other themes was the congruence between participant descriptions with Bar-On's (2006) definition of the emotional-social intelligence skill.

Clinical decision making in nursing "is a deliberate problem solving activity or process where conclusions are developed based on an actual or perceived patient need or response" (Wiles, Simko, & Schoessler, 2013, p. 167). Participants in this study were clear about the deliberate nature and the need to make decisions based on patient needs and responses. For example, participant I stated:

> …[nurses] are evaluating a situation and asking that person or patient what their goal is…coming up with maybe a couple different options to evaluate and then move forward with one of them…also in that proactively trying to mitigate any risks associated.

It was important to clearly establish problem solving within the context of nursing to accurately represent findings from this study and the emotional-social intelligence skill for nursing. Clinical decision making, rather than problem solving, is the term that is

preferred for emotional-social intelligence skills in nursing. The term clinical decision making is used in the emerging model that will be discussed.

Emotional self-awareness is an intrapersonal, emotional-social intelligence skill defined by Bar-On as the "ability to be aware of, identify, and understand emotions." Although not identified as a theme based on participant interviews and frequency of coded segments, there was evidence to support self-awareness as a key skill for emotional-social intelligence development and use. As discussed, in this study, self-awareness was important for engagement, stress tolerance, and flexibility. Furthermore, there was evidence to support that optimal emotional-social intelligence skill development was dependent upon self-awareness. For example, participant C stated, "Somehow they [registered nurse] have to know how they are being received and recognize that." Participants commonly reported observations in which the registered nurse had to recognize, manage, or suppress emotions to effectively use one of the four essential emotional-social intelligence skills. For instance, participant G highlighted the importance of self-awareness for emotional flexibility when caring for a dying patient by stating:

I've [registered nurse] kind of addressed my own internal struggles with this situation and I've [registered nurse] done the best I could. I've [registered nurse] cared for this patient, he's comfortable, and everything like that. And then, you know, going to the next room essentially putting on a happy face, you know.

Based on interviews with participants, without self-awareness, registered nurses would not be able to successfully use the emotional-social intelligence skills of stress tolerance, flexibility, and problem solving within the acute care setting. The literature supported self-awareness was an important emotional-social intelligence skill in nursing

(Goleman, 1995; Hutchinson et al., 2018; Kooker et al., 2007; Parsa Yekta & Abdolrahimi, 2015). In addition, nursing research commonly used the term emotional intelligence to describe emotional awareness of one's self and others. Hutchinson et al. (2018) specifically identified the role of emotional self-awareness during clinical reasoning. Results from this study and the literature found that self-awareness is an important foundation for the use and development of emotional-social intelligence skills.

Participants described problem solving related to critical thinking and making decisions regarding workflow and patient care. To maintain the integrity of data analysis, the theme problem solving was identified. Based on findings from this study and research, the term clinical decision making, rather than problem solving, was identified as a more appropriate emotional-social intelligence skill for nursing. Empathy was identified as a supporting skill that enhanced problem solving. Additionally, the connection between stress tolerance and problem solving identified in this study was supported by the literature. Self-awareness was an important emotional-social intelligence skill that related to the four themes identified.

Research Question Two: Emotional-Social Intelligence Skills Development

The second research question was, "How are emotional-social intelligence skills developed in nursing?" The development of emotional-social intelligence skills is important for patient safety, nursing sensitive outcomes, and nursing student academic performance (Codier & Codier, 2017; Michelangelo, 2015; Schub & Smith, 2017; Fujino et al., 2015). Ranjbar Ezzatabadi et al. (2012) found nurses' emotional intelligence was directly related to job satisfaction and hospital service quality. The literature provided strong support that emotional-social intelligence skills can be learned and developed over time and/or as a result of education (Benson, et al., 2010; Kaya et al., 2017; Sharon &

Grinberg, 2017). Findings from the literature supported results from this study that development occurs via relationships and within the context of the acute care practice setting.

Based on the review of literature, it appears that the development of emotional-social intelligence skills has been extensively examined in nursing education (Benson et al., 2012; Bulmer Smith et al., 2009; Day et al. 2017). The development of emotional-social intelligence skills focused on the outcomes of educational activities, such as formal instructional sessions. In these studies, the focus of the research was often the educational intervention rather than the impact of relationships on the development of emotional-social intelligence skills. Outcomes were reported as emotional intelligence measurements before and after an intervention or specified time. A variety of interventions have been tested using existing measures of emotional-social intelligence; however, the process of development lacks understanding. Most frequently, researchers recommended education be used to increase emotional-social intelligence. The variability in the educational interventions, measurements, and reported outcomes resulted in a lack of clarity on the most effective ways to develop emotional-social intelligence skills in nursing education.

Theoretically, the Bar-On Model of Emotional-Social Intelligence (2006) was designed to describe emotional and social competencies conducive to life successes. The model does not include descriptions of the development of the emotional-social intelligence factors. Therefore, the Bar-On Model was not correlated with findings for the second research question.

Development of emotional-social intelligence skills was described by participants as occurring as a result of educational activities and practice experiences and in

relationships with nurse managers and colleagues. The antecedent to effective development was described by the theme engagement. Through practice experiences and educational activities, the registered nurse engaged with other individuals who served as mentors, role models, and/or coaches. Innate was a unique development theme that related to the emotional-social intelligence skill empathy. The themes and sub-themes of emotional-social intelligence skills development will be discussed in correlation to the literature.

Mentor. The theme mentor was identified by participants as an important factor in the development of emotional-social intelligence skills. In this study, mentor was defined as an experienced registered nurse who serves as a trusted counselor or guide for another registered nurse. The definition of mentor was adapted from the Merriam Webster Online Dictionary (2019) in order to adequately represent the role in emotional-social intelligence development for the registered nurse as described by participants.

Several participants referenced that a mentor was assigned as part of new nurse orientation. As a nurse manager, participant J stated how they "try to promote" behaviors to foster positive interpersonal relationship skills. For instance, the importance of communication for the emotional-social intelligence skill of interpersonal relationships was emphasized when participant J described mentoring new nurses by stating, "so not being afraid of those relationships or intimidated by physicians, but just kind of stepping out of your [new graduate] comfort zone and just getting to know them [physicians], introducing yourself to them." Participant E stated how, as a mentor, they were available to the mentee and supported emotional-social intelligence skill development. For example, participant E stated, "just trying to help her [new graduate] through that [low stress tolerance]…she does not have the stress or coping mechanisms." In this situation,

the participant stated that the new graduate was tearful on several occasions. Furthermore, mentorship was described as continued encouragement and support as the new graduate encountered new experiences and transitioned to practice.

The use of a mentor-mentee relationship was commonly cited as formal and occurring between an experienced registered nurse and new graduate. However, participants also described informal instances of mentorship between registered nurses. Given that the relationship is based on trust and counsel, there is inherently an emotional-social component. The development of emotional-social intelligence skills occurred as a result of discussions between the mentor and mentee about practice experiences.

Findings from the review of literature for mentoring emotional-social intelligence development in nursing were limited. In nursing practice, Kooker et al. (2007) reported mentoring was an essential element based on a qualitative study of 16 registered nurses from both rural and urban settings. In an integrative review, Bulmer Smith, Profetto-McGrath, and Cummings (2009) reported that the emotional knowledge needed for practice is linked to mentorship relationships during teaching and learning experiences. Based on these findings, practice experiences were an important component of mentoring to develop emotional-social intelligence skills.

Participants frequently reported formal mentorship, as part of new nurse orientation, was important for emotional-social intelligence development. Although limited, there was research evidence to support mentoring for emotional-social intelligence skill development in nursing. Practice experiences were an important component for emotional-social intelligence development in the mentoring relationship. Based on findings from this study and the literature, there is evidence that mentorship in undergraduate nursing education would be beneficial for emotional-social intelligence

development.

Role model was the single sub-theme to mentor. Role models were characterized as experienced nurses who were observed in practice. For this study, the definition of role model was a registered nurse whose role performance behavior is imitated by others. The definition of role model was adapted from the Merriam Webster Online Dictionary (2019) in order to identify that the one whose behavior is imitated was a registered nurse, as described by participants.

Based on the definition, any registered nurse can be a role model at any given moment. The role model was described as an individual who may not be aware that their actions and behaviors are observed, modeled after, or avoided. This was the key distinguishing characteristic from the theme mentor. Participant B described role modeling as occurring through the observation of registered nurses. Additionally, participant C described situations in which nurses may observe "what I don't want to be like or what, how I do want to be."

Emotional-social intelligence development, as a result of role modeling, was described by participant J, who stated:

> We [registered nurses] also talk to a lot of different departments as well. And so, um, I think just being, again being respectful to everybody that you are communicating with, um. Even if the receiving end isn't the most friendliest, just making sure. So just in those moments, sharing your thoughts, that kind of talking it out is so important.

In this example, the participant described the importance of sharing experiences related to the use of stress tolerance and positive communication to manage interpersonal relationships within the practice setting. It was common for frontline managers to speak

with pride and fondness about their own role models or how they served as a role model. For instance, participant B stated, "You know, I want to be respected, but yet I want to be able to, to um, incorporate that [empathy]." In addition to empathy, problem solving was also identified as being developed through role modeling when participant G stated the importance of "being able to walk through [a situation]…so we can problem solve and then she [role model] passes those skills on to me."

There was a strong desire expressed by participants to serve as a role model for emotional-social intelligence skills. Furthermore, participants discussed with passion the impact their own role models had on their practice. Role models were observed, whereas a mentor was often described as an assigned relationship. Based on this review of literature, there was no evidence to validate role modeling was used for emotional-social intelligence skill development in nursing.

There was clear evidence from this study to support the claim that mentoring and role modeling developed emotional-social intelligence skills in conjunction with the cognitive and psychomotor skills used within the practice setting. However, it was difficult to separate efforts to develop emotional-social intelligence from cognitive intelligence given that nursing practice includes both simultaneously. This emphasized the need for practice experiences to develop emotional-social intelligence skills.

Coach. In this study, participants described the coach as an individual who provided direct instruction and training for emotional-social intelligence development. As with mentor and role model, the definition of coach was adapted from the Merriam Webster Online Dictionary (2019) to be able to accurately represent participant statements. Participants frequently discussed educational activities, including workshops, conferences, and small group training. In addition, several participants reported having

used coaching with registered nurses whose role performance was below expectations.

Participants reported that the coach was responsible for supporting educational activities taking place on the nursing unit and within the hospital. Education topics related to emotional-social intelligence skills, such as optimism, interpersonal relationships, and overall emotional-intelligence, were reported by participants. For example, participant E stated that the hospital had a conference which focused on "stress tolerance…on stress, burnout, and how to like, self-care." Emotional-social intelligence skill instruction and training was offered by the hospital at-large or identified as important by the nurses and subsequently offered to the unit staff. For example, participant E stated that the staff on their unit wanted "to have the meeting for, like the civility and relationships and so that is what we did last year." Participants reported that frontline nurse managers teach stress tolerance skills in new nurse orientation, as well as support emotional-social intelligence education activities by providing one-on-one coaching.

Participants also described coaching in response to specific incidences when role performance fell below the standard of care. In comparison to the themes mentor and role model, the theme coach was described by participants with less passion and more matter-of-factly. Several participants stated that the role of the coach was a formal assigned role and responsibility of frontline nurse managers. As such, the relationship between the coach and registered nurse was more prescriptive and less flexible in comparison to the mentor and role model relationships. This may be the reason why participants described the theme coach with less emotion. Additionally, there was a negative connotation associated with coaching since it was an expectation to facilitate performance conversations. For example, participant J stated that coaching included the "expectation

of their [nurses] behavior…related to any quality events." Similarly, participant E stated "I'm expected to coach, talk to people if they are not doing what they are expected."

Several participants stated that coaching was a formal responsibility of nurse managers. The participants who reported formal coaching responsibilities did state they received coaching instruction but could not clearly articulate their role. For instance, participant E stated "[managers] get different tools…So like one of the things that came through. Um, what is this thing even called? [referring to paper on bulletin board] It's like a crucial conversation, it's like inside-out coaching." Inside-out coaching aligns with emotional-social intelligence skill development and focuses on improvement in each individual's performance, rather than achieving a benchmark. This is consistent with the notion that emotional-social intelligence skills are conducive to personal and professional life successes (Bar-On, 2006; Goleman, 1995). Similarly, coaching crucial conversations supports emotional-social intelligence skill development to manage emotions during high stress situations when the stakes are high, such as during an acute patient care situation.

The literature confirmed findings from this study that coaches in the clinical setting are important for the development of emotional-social intelligence skills. In undergraduate education, the use of a coach in emotional intelligence learning experiences yielded a positive academic outcome (Opsahl et al., 2018). In a case-controlled study, university students were placed in one of three emotional competence training modalities (Gilar-Corbí, Pozo-Rico, Sánchez, & Castejón, 2018). In this study, the group receiving coaching-mediated methodology achieved the best results in emotional intelligence outcomes. Similarly, 90% of students who received emotional intelligence instruction reported peer coaching was beneficial for leadership development (Szeles, 2015). Overall, the literature supported the role of the coach in the clinical

setting.

Consistent with the literature, this study confirmed the role of the coach in emotional-social intelligence skill development in nurses. The coach was typically described as a formal role and included direct instruction and/or training. The frontline nurse managers specifically identified performance incidents that required training and remediation. However, nurse residency programs and hospital-wide education were described as having emotional-social intelligence educational activities consistent with the coach definition. Findings from this study confirmed current research, which strongly suggest coaches have a positive impact on the development of emotional-social intelligence skills.

Debrief was the only sub-theme to coach and was described as a method used to guide nurses to incorporate emotional learning to self-reflect. Because debriefing was only discussed in relationship to instruction, it was linked to the coach theme. During debriefing, emotional-social intelligence skill development appears to be a process that occurs parallel to cognitive and psychomotor skill development. It was difficult to distinguish emotional-social development from cognitive or psychomotor development based on participant responses. This is not a shortcoming, but rather highlights the importance of emotional-social skill development within the context of nursing practice experiences. A registered nurse cannot develop emotional-social intelligence skills without considering practice experiences and self-awareness of their own knowledge, skill level, and emotions.

The findings from the review of literature did not provide evidence to support the term debrief, the theme identified in this study, for emotional-social intelligence development. However, there was strong evidence that self-reflection is important for

emotional-social intelligence development in nursing and related health professions education (Day et al., 2017; Grant et al., 2014; Gribble et al., 2017; McCloughen & Foster, 2018). Self-reflection and self-awareness in this study were key components of debriefing as described by participants.

Consistent with the literature, findings from this study confirmed that self-reflection within the context of nursing practice was important for emotional-social intelligence teaching and learning. Debriefing in this study was defined as a discussion of the emotional-social aspects of a nursing practice experience in order to assess and reflect on one's conduct, the outcome, and opportunities for improvement. For example, participant I stated:

> …having seen positive development in nurses…we debrief on a situation when they kind of self-reflect on what went well, what could have gone better. Those scenarios I hear and I find that they kind of help and advance them if they're honest in what happened and in evaluating the situation.

Additionally, participant J emphasized the importance of "taking time to reflect and debrief throughout the day and after certain situations to make sure you are learning and growing."

Findings from this study confirmed research that supports emotional intelligence learning occurs as a result of self-reflection, an important part of debriefing. Reflection was commonly reported by participants and included the emotional and social aspects of nursing practice. Debriefing, inclusive of self-reflection, was described by participants as a teaching and learning method used by coaches.

Engagement. Engagement was a key theme for emotional-social intelligence development. Engagement was defined as the emotional commitment the registered nurse

feels towards the profession, roles, and responsibilities. The majority of participants discussed aspects of engagement when asked about the development of emotional-social intelligence skills. Participants emphasized an openness to learning and commitment to the profession of nursing as important for emotional-social skill development. Self-awareness of practice experiences was identified as an important aspect of emotional commitment demonstrated by the registered nurse. Engagement was described as necessary for emotional-social intelligence development through educational activities, the observation of role models, and openness to feedback from experienced colleagues.

The following descriptors and related factors were used by participants to describe engagement: maturity, willing, self-driven, eager, and asking questions. These findings supported the role of self-awareness for engagement as defined in this study. Participant F described the engaged nurse as "an advocate for their learning" and that it "really helps with their stress tolerance to be able to be exposed to all of these things in orientation." They went on to conclude, "it is really important for new grads to come and really be an advocate for themselves in their own learning…it seems like people learn a lot quicker when they do that." Furthermore, development was dependent upon "how open the person is to receiving, receiving guidance or accepting of emotional skills in general" according to participant B. Based on findings from the review of literature, it appears that the relationship between engagement and emotional-social intelligence development has not been fully explored.

The emotional intelligence research reviewed focused on cognitive-based interventions and outcomes. Engagement as an element of emotional-social intelligence development was not fully addressed in the literature. However, there was evidence to validate a connection between engagement and emotional-social intelligence. Similar to

findings in this study, Hutchinson et al. (2018) found active engagement with emotions occurred through practice experiences and over time. In a study examining the relationship between engagement and emotional intelligence in nurses, Pérez-Fuentes, Molero Jurado, Gázquez Linares, and Oropesa Ruiz (2018) found emotional intelligence explained 22.8% of the variability in engagement. Furthermore, the interpersonal factor of emotional intelligence was the best predictor of engagement (Pérez-Fuentes, Molero Jurado, Gázquez Linares, & Oropesa Ruiz, 2018).

Findings from this study strongly supported the role of engagement as a fundamental attribute for emotional-social intelligence development. More than half of participants described aspects of engagement important for emotional-social intelligence development. The emotional commitment of the registered nurse was an antecedent to role specific emotional-social intelligence skill development.

Innate. The emotional-social intelligence skill of empathy was unique in comparison to the other skills and was described as innate. On the contrary, most emotional-social intelligence skills were explained by participants as being developed in nursing practice and nursing education. Participants were able to describe and discuss empathy with ease. The comfort with this topic conveyed a deeper understanding of the innate characteristic of empathy. There was consensus among participants that empathy was natural, innate, and as participant B stated, not "really something that can be taught." According to participant F, "It is hard to teach empathy" because it "is what you were born with." Additionally participant I stated, "I don't know that I've had to do a whole lot of work one-on-one trying to impact someone's empathy." Based these findings, the process of development presented highlights the innate nature of empathy as an existing attribute of the registered nurse.

Although innate, empathy was described as a skill that could be further developed. For example, participant G stated, "it's kind of a starting base foundation to build on." Likewise, participant E discussed building empathy through "deeper understanding" and "a connection to purpose…the why behind it [nursing]." Research in emotional-social intelligence development does not appear to have addressed innate skills in nursing. However, it is important to note the strong theme of empathy in emotional-social intelligence literature (Cerit & Beser, 2014; Cleary et al., 2018; Foster, Fethney, McKenzie, Fisher, Harkness, & Kozlowski, 2017; Freshwater & Stickley, 2004; Hen & Goroshit, 2011; Štiglic et al., 2018). These findings suggest empathy is a common trait in the nursing profession.

The theme innate was unique to the emotional-social intelligence skill of empathy. The strong presence of empathy in the registered nurse was a finding in this study and the literature. Although innate, empathy was described as a skill that can be further developed.

The Process of Emotional-Social Intelligence Development

Based on findings from this study, a visual representation of the elements and process of emotional-social intelligence development was created (see Figure 6). This study confirmed strong research evidence, which supports emotional-social intelligence skills can be learned and developed (Benson et al., 2010; Kaya et al., 2018; Sharon & Grinberg, 2017). Most studies examined emotional intelligence outcomes related to a variety of educational interventions and/or over a specified amount of time. Fewer studies reported findings related to the role of self-awareness, the observation of role models, and feedback from mentors and coaches within the context of the practice environment. This study validated the importance of engagement with experienced nurses. Connections and

guidance from mentors, role models, and coaches within the acute care setting was key for emotional-social intelligence development. These relationships fostered emotional-social intelligence development through educational activities and practice experiences. Engagement was a prerequisite for emotional-social intelligence development to occur as a result of practice experiences, educational activities, and during interactions with coaches, mentors, and role models.
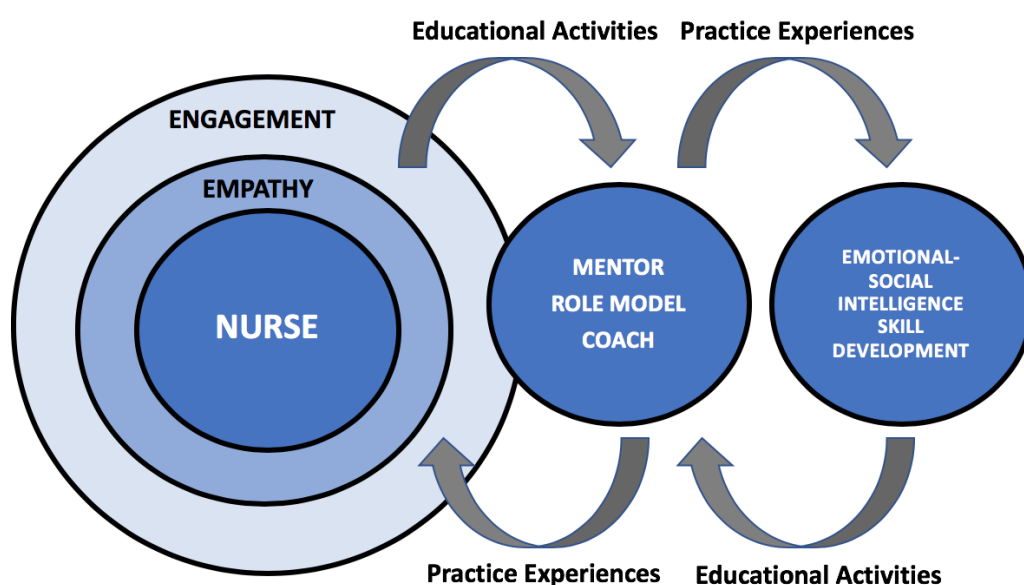
Figure 6. Elements and process of emotional-social intelligence skill development

In this process model, the registered nurse is the beginning point, with engagement as the gateway to educational activities, intentional observation, and relationships with experienced registered nurses for the purpose of development. Empathy was the only emotional-social intelligence skill that was described by participants as innate. Although innate, empathy can be further enhanced from an existing foundation. This explains the concentric circles in the center of the process model. Engagement was described as an intrapersonal process manifested in nurses' responses to

others, practice experiences, and educational activities. The arrows on the model represent an ongoing process of development for the engaged registered nurse through educational activities and practice experiences. The participants described how registered nurses responded to coaching or mentoring. Openness and honesty, for example, were linked to positive growth. Role models were described as nurses who served as positive and negative exemplars for nursing practice and who were observed by registered nurses.

Practice experiences are the direct pathway for the engaged registered nurse to develop emotional-social intelligence skills. The practice experiences are further enhanced by engagement with educational activities aimed at increasing emotional-social intelligence skills. For example, activities that augmented these interactions include nurse residency programs, learning experiences as part of new nurse orientation, debriefing opportunities, and professional development.

The development of emotional-social intelligence skills was also described as taking place through relationships with experienced registered nurses. These individuals served as mentors and coaches. Role models were registered nurses who were observed by another registered nurse. The elements of coach, mentor, and role model were described as interactions which occurred between a novice registered nurse and an experienced nurse.

Coaching was described as a formal instructor role. Coaching typically occurred between the nurse manager and staff registered nurse. Debriefing was the most common teaching method described by participants in which the coach provided training to the registered nurses. Mentoring and role modeling commonly occurred between the registered nurse and nurse manager and/or colleagues. While role model was a sub-theme to mentor, it was possible for a role model not to serve as a mentor. The role model

involved informal observation of a nurse manager or colleague. Mentor and role model were equally important to development as represented in the process model. Engagement with the practice experience, combined with educational activities and connections with mentors, role models, and coaches resulted in emotional-social intelligence skill development.

The process of development illustrated provides additional context for the emerging Minster Five-Factor Model of Emotional-Social Intelligence for Nursing. This emerging model depicts the essential emotional-social intelligence skills for nursing practice and how they relate one another. An important feature of the Minster Five-Factor Model is emotional-social intelligence skills development. Development and experience are included in the model based on findings that emotional-social intelligence skills can be learned. The clinical practice setting was most effective for emotional-social intelligence development.

The Minster Five-Factor Model of Emotional-Social Intelligence for Nursing

Findings from this study established the Minster Five-Factor Model of Emotional-Social Intelligence for Nursing. Based on the review of literature, an emotional-social intelligence model for nursing could not be located. An emerging model was developed based on findings from this research study and supporting evidence from the current literature. The Minster Five-Factor Model of Emotional-Social Intelligence for Nursing was established to illustrate the essential emotional-social intelligence skills for nursing practice and how these skills are developed within the context of nursing (see Figure 7).

The emotional-social intelligence skills in the emerging model are based on the Bar-On Model (2006) and are: empathy, stress tolerance, flexibility, clinical decision making, and self-awareness. As discussed, based on the literature and findings from this

study, clinical decision making more accurately represents the emotional-social

intelligence skill of problem solving used by registered nurses in the acute care setting.

Therefore, the model uses clinical decision making rather than problem solving.

Although self-awareness was not a theme identified by participants in this study, it was a

key feature for the development of the emotional-social intelligence skills that were

identified as essential. Additionally, the environmental conditions and situational domain

represent the context of nursing in the model.
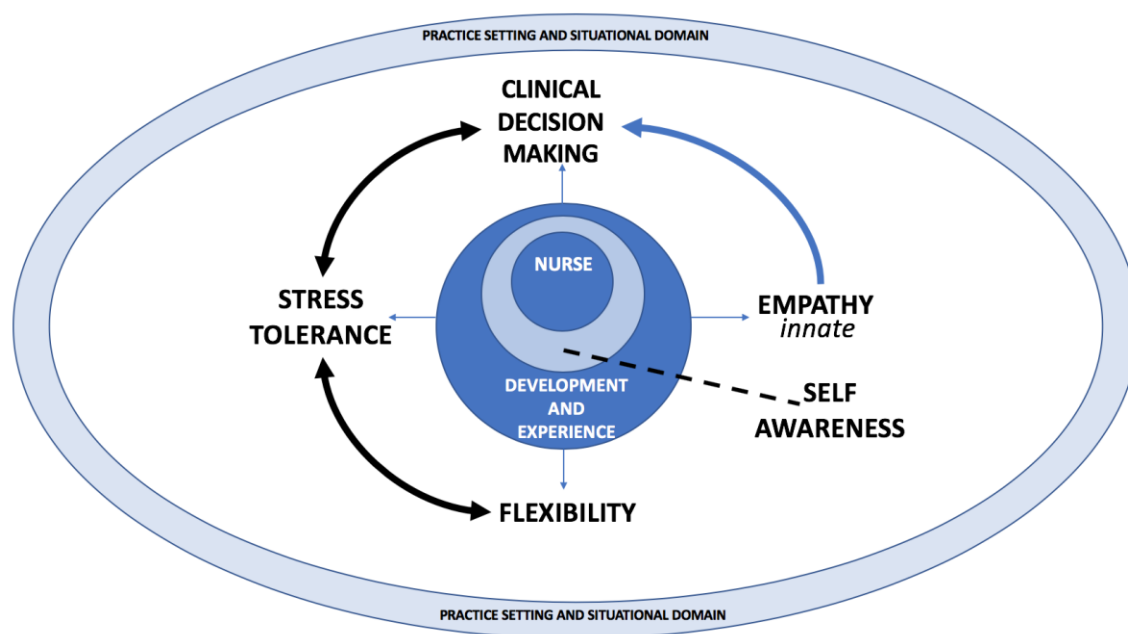
Figure 7. The Minster Five-Factor Model of Emotional-Social Intelligence for Nursing

The Minster Five-Factor Model of Emotional-Social Intelligence for Nursing is

unique in that it specifically highlights the essential skills for nursing. This is important

based on criticisms that emotional intelligence is a broad concept and difficult to

operationalize (Akerjordet & Severinsson, 2010; Benson et al., 2010). Existing non-

nursing models include high-level categories with numerous sub-skills or abilities. In the

Minster Five-Factor Model of Emotional-Social Intelligence for Nursing, a simplified

and purposeful representation of the essential skills is provided. The advantage of this model over existing models is the focus on five essential emotional-social intelligence skills for nursing practice. This is not to negate the value of previous work in emotional intelligence research, but rather to provide a starting point for a more reliable and valid emotional-social intelligence model for nursing. This emerging model was developed for the purpose of narrowing the theory-practice gap and identifying the development and use of emotional-social intelligence skills specific to the acute care registered nurse role.

The model was designed with the nurse at the center. The closest ring to the nurse is self-awareness. Emotional self-awareness is an intrapersonal meta-factor defined by Bar-On (2006) as the ability "to be aware of and understand one's emotions." Results from this study supported a minimal level of competency in self-awareness as essential. According to Freshwater and Stickley (2004), the ability to manage one's emotional life while at the same time interpreting other's emotions is a skill required for any caring profession. Additionally, Waite and McKinney (2015) reported emotional self-awareness was a core variable for increasing emotional competence and a key to improved understanding of behavior for pre-licensure nursing students. Hutchinson et al. (2017) concluded that self-awareness was related to the ability to recognize and use emotional cues to effectively and quickly manage situations.

Self-awareness is a co-requisite for the development and effective use of emotional-social intelligence skills in nursing. At the lowest level, nurses are minimally aware of and understand their own emotions. However, with higher levels of self-awareness the nurse is able to actively engage in the development and use of empathy, stress management, flexibility, and clinical decision making. Changes in self-understanding, according to Benner et al. (2010), are part of becoming a professional.

Development, like professional identity formation, takes place through practice experiences and education (Benner, 2001). Therefore, development and experience are the next ring surrounding the nurse and self-awareness. These rings are in close proximity to the nurse due to the intrapersonal nature and individualized experiences the registered nurse encounters. Development of emotional-social intelligence findings from this study were supported by the literature. For example, in a study on the use of emotional capabilities in clinical reasoning, nurses with more patient care experiences reported improved decision making through the engagement of emotional capabilities (Hutchinson et al., 2017).

Connected to the registered nurse who is embedded in self-awareness, development, and experience, are the core four emotional-social intelligence factors: empathy, stress tolerance, flexibility, and clinical decision making. Empathy was the only factor clearly identified as innate. Nursing as a profession requires compassion, empathy, and understanding thereby attracting individuals with those qualities to the profession (Štiglic et al., 2018). This study confirmed existing research as all participants stated empathy was essential and innate. Although innate, there was evidence to support empathy can be further developed and explains the placement of empathy as external to the nurse in the model.

Empathy is unidirectionally connected to clinical decision making only. Findings supported empathy enhanced clinical decision making; however, empathy did not clearly relate to other emotional-social intelligence factors. There is strong evidence to support the claim that empathy improves clinical decision making (Hutchinson et al., 2018; Kaya et al., 2018). Stress tolerance was described by participants as working together with the adaptation factors of flexibility and clinical decision making. Therefore, the connecting

arrows in the model represent this relationship. This connection was also supported by the literature (Aradilla-Herrero & Tomas-Sabado, 2011; Chun & Park, 2016; Noorbakhsh, Besharat, & Zarei, 2010).

The last concept in the model was a point often not discussed in the literature. The outer ring surrounding the registered nurse and five essential skills is the practice setting and situational domain. The use of, and observations of, emotional-social intelligence provided by participants included rich descriptions of the acute care setting and situations encountered by the registered nurse. It appeared that in order to accurately identify the essential emotional-social intelligence skills, contextual factors were needed. These findings were consistent with Gardner's (2011) idea of cultures, which in this case is acute care nurses who possess a unique set of personal intelligence skills.

Based on the literature, it was evident that higher emotional intelligence was correlated to improved nursing performance (Codier & Codier, 2017; Michelangelo, 2015; Schub & Smith, 2017). This study did not examine the relationship between emotional intelligence and nursing performance outcomes. However, this study did identify the most important emotional-social intelligence skills for registered nurses who practice in the acute care setting. This is significant based on evidence in the literature, which did not clearly delineate the specific emotional-social intelligence factors correlated with performance outcomes in nursing. This model is presented to narrow the field of an overwhelming number of emotional intelligence and emotional-social intelligence qualities, skills, and/or competencies. As a result, this model provides the specific context and skills to clearly measure improvements in performance outcomes for nursing practice and nursing education.

This model confirms existing research in nursing and emotional intelligence.

Consistent with the Bar-On (2006) definition of emotional-social intelligence, frontline nurse managers described skills within the practice setting of nursing to include the ability to "effectively manage personal, social, and environmental change by realistically and flexibly coping with the immediate situation, solving problems, and making decisions" (p. 4). The Minster Five-Factor Model of Emotional-Social Intelligence for Nursing narrows the theory-practice gap by highlighting the essential emotional-social intelligence skills for nursing. The majority of participants acknowledged that all of the Bar-On's (2006) emotional-social factors were used by nurses in varying degrees. To include all factors identified would have contributed to the lack of clarity and understanding of the emotional-social intelligence skills essential for nursing.

The Bar-On Model of Emotional-Social Intelligence was the theoretical model for this study and has proven to be capable of predicting aspects of human performance (Bar-On, 2006). The relationship between the model and school and workplace performance has been studied. According to Bar-On (2006), the most important contributors to emotional-social intelligence and role performance identified from this study were self-awareness, empathy, and stress tolerance. From an academic perspective, Bar-On (2006) concluded that improving low performing emotional-social intelligence skills is expected to improve school performance.

Minster Five-Factor Model of Emotional-Social Intelligence for Nursing was established for acute care nursing practice and pre-licensure nursing education. The essential factors in the emerging model align with professional nursing standards and guidelines. For example, the Essentials of Baccalaureate Education for Professional Nursing Practice (2008), Essential VIII: Professionalism and Professional Values states that the baccalaureate prepared nurse should be empathetic and have the ability to

interpret emotions aligns with the proposed model. Additionally, the QSEN competencies include attitudes consistent with emotional-social intelligence skills identified in this study. For instance, patient-centered care emphasizes compassion and evidence-based practice describes the importance of clinical decision making. Additionally, all QSEN competencies include an affective component or attitudes, which rely on self-awareness. The model provides evidence beyond nursing history and tradition to support the importance of affective outcomes in nursing practice.

The Minster Five-Factor Model of Emotional-Social Intelligence for Nursing describes the development and use of the essential emotional-social intelligence skills for registered nurses working in the acute care setting. This emerging model is specific to the nursing practice work environment and the day-to-day situational experiences. Self-awareness is needed to reflect on practice experiences and engage in the development process. Through engagement, the registered nurse employs empathy, stress tolerance, clinical decision making, and flexibility. These emotional-social intelligence factors continue to be developed through the use of self-awareness and new experiences.

The essential factors of emotional-social intelligence for nursing identified in this model are also described as relational. Empathy, although innate, can be further developed and enhances clinical decision making. Stress tolerance contributes to more effective clinical decision making and flexibility. Likewise, clinical decision making and flexibility positively impact the registered nurses' ability to manage stress.

The emerging Minster Five-Factor Model of Emotional-Social Intelligence for Nursing provides an innovative perspective. Emotional intelligence in nursing has relied upon existing models, none of which were found to be specific to nursing. This study explored the idea of emotional-social intelligence through the lens of frontline nurse

managers and acute care nursing practice. This model represents the emotional-social intelligence use and development in nursing practice, as well as important connections between the emotional-social intelligence factors.

The Minster Five-Factor Model of Emotional-Social Intelligence for Nursing provides the framework for incorporating emotional-social intelligence into nursing education. Self-awareness, as a primary emotional-social intelligence factor, should be introduced first and scaffolded throughout an educational program. The focus on self-awareness, the four essential emotional-social intelligence factors, and how they are related provides an avenue for successful emotional-social intelligence education in nursing. Intentional and guided inclusion of the essential skills identified in this study will improve emotional-social intelligence. Based on the literature, there is evidence to support the correlation between higher emotional-social intelligence and improved performance outcomes. Using effective methodologies to teach the Minster Five-Factor model in nursing will likely improve emotional-social intelligence and, therefore, performance outcomes.

This study identified that the development of emotional-social intelligence required self-awareness and connections with colleagues within the practice setting. Reflection on practice experiences that intentionally addresses the role of empathy, clinical decision making, stress tolerance, and flexibility results in the development of emotional-social intelligence. This development is further enhanced through the observation of role models and in the relationship with mentors and coaches. Mentors and coaches need to receive formal training in emotional-social intelligence development. Nursing faculty especially need to be acutely aware of the fact that they are primary role models for nursing students who are observing them. Nursing students are likely to

imitate their emotional-social actions and behaviors. In the practice setting, nurse managers, charge nurses, and other frontline nurse manager roles also need to have the understanding that they are observed more intently by the nurses they oversee.

In summary, the Minster Five-Factor Model of Emotional-Social Intelligence for Nursing was established based on findings from this study. There was evidence from the current literature to support this emerging model for emotional-social intelligence in nursing. The model illustrates the essential emotional-social intelligence skills for nursing practice and how these skills are developed within the context of nursing. The model describes the most important emotional-social intelligence factors and how they relate to one another. Furthermore, the model describes the development of skills as highly relational, while emphasizing the important role of self-awareness in the practice setting and reflection on individual clinical practice experiences.

Limitations of the Study

The first limitation was the study sample. The theoretical sampling process and constant comparison method was used to analyze data and engage additional participants to better understand the emerging categories. The estimated sample was 20 participants; however, saturation was achieved after eight interviews. Additionally, all participants identified as female. A sampling from both urban and rural hospitals provided diversity of insights, but the sample was limited to southeast Nebraska. Therefore, findings may not be generalizable.

Recommendations for Education

Findings from this study established the Minster Five-Factor Model of Emotional-Social Intelligence for Nursing. As a developing concept in nursing, there is evidence to support emotional-social intelligence as something that can be learned and developed to

improve outcomes in education and practice. It is recommended that undergraduate nurse educators and administrators implement emotional-social intelligence skills education based on the essential skills identified in this study and supported by the literature. Findings from this study were derived from nursing practice with the intent of providing knowledge to narrow the theory-practice gap. It is recommended that nurse educators focus on the four factors of emotional-social intelligence identified in this study to develop emotional-social intelligence curriculum in nursing. Furthermore, nurse educators are encouraged to include self-awareness as an important fifth emotional-social intelligence factor to develop the most effective emotional-social intelligence curriculum. It is important for nursing education to identify the context and objectives of an emotional-social intelligence development program based on a nursing model.

Nurse administrators and educators must seek out emotional-social intelligence education to learn more about the topic. A nursing program that clearly identifies and supports emotional-social growth and development as part of the curriculum will improve academic outcomes. For example, supporting self-awareness and professional engagement enhances professional identity formation. Additionally, highlighting the essential emotional-social intelligence factors within the practice setting and situational domain of nursing is important for workplace success. Nurse educators should intentionally include emotional-social intelligence content into existing instructional methodologies.

It is recommended that nursing programs thread emotional-social intelligence factors across the curriculum to ensure continued engagement and development (Collins et al., 2014; Shanta & Gargiulo, 2014; Sharon & Grinberg, 2017). Emotional-social intelligence development should be scaffolded and taught progressively, from simple to

complex. Initially, emotional-social intelligence education should focus on the benefits of understanding the important role of self-awareness for emotional-social intelligence. Nurse educators are responsible for fostering teaching and learning methodologies that promote self-awareness as part of professional identity formation. Self-awareness is a powerful emotional-social intelligence skill that serves as the gateway for the four core emotional-social intelligence skills and characteristics consistent with on-the-job success. As nursing students transition into clinical practice experiences and greater independence, the practice of self-reflection must include an emotional-social component. Deliberate inclusion of the essential emotional-social skills for nursing identified in this study is needed in improve relational skills. These emotional skills, which are a vital component of effective nursing, need to be taught together with cognitive skills. The five factors in the Minster model provide a consistent framework for nurse educators to implement and measure performance outcomes.

The most obvious method for teaching emotional-social intelligence skills is within the context of the practice setting. Educators must employ teaching methods that tap into the affective domain during applied instruction such as clinical experiences, simulation, and case studies. Given that self-awareness and engagement are needed for development, it is imperative that emotional-social intelligence education focuses on these aspects in coordination with the essential factors. Additionally, specific teaching strategies may improve the development of important emotional-social intelligence skills. For example, unfolding case studies allow for greater character development, influencing empathy and enhancing clinical decision making. Similarly, the emotional-social intelligence development of stress tolerance and flexibility must be highlighted and discussed within the context of situated learning experiences.

The development of emotional-social intelligence skills includes several key approaches already used in nursing education. Nursing faculty and preceptors are natural mentors, role models, and coaches. It is advised that faculty receive formal training and/or instruction to serve as an effective role model and coach for emotional-social intelligence skills. However, appropriate instruction on the most effective emotional-social intelligence teaching strategies for undergraduate nursing students is needed. As an example, debriefing is a common practice used in nursing education that requires a specific skill set and methods for optimal outcomes. Emotional-social intelligence skill development should be threaded through existing educational activities and practice experiences to yield positive academic and performance outcomes.

Future Research

Based on this study, there are five essential emotional-social intelligence skills for nursing practice. The findings from this study have provided additional areas of emotional-social intelligence in nursing as possible directions for future research. Furthermore, the development process found that emotional-social intelligence can be learned. Based on the emerging Minster Five-Factor Model of Emotional-Social Intelligence for Nursing, an application process model was established (see Figure 8). This operationalized version of the emerging model can be used to formally test the theoretical findings from this study.

This research study identified several areas for additional exploration on the topic of emotional-social intelligence skills in nursing. First, the proposed model is emerging and additional studies need to be conducted to test the emotional-social intelligence factors identified and the relationships between the skills. The 15 factors of the Bar-On Model of Emotional-Social Intelligence and definitions were used as a checklist for

participants. This was necessary to provide a common framework to begin to explore the essential emotional-social factors for nursing. Next, it is recommended that replication studies are conducted, with and without an emotional-social intelligence skills checklist, to validate findings from this study. More research is needed to support the relationship between essential emotional-social intelligence skills, clinical decision making, and improved nursing outcomes. Last, self-awareness is an important skill that appears to be foundational for emotional-social intelligence and should be examined more closely in nursing.

Additionally, more research is needed to understand the development of emotional-social intelligence in nursing. Findings from this study found that the development of emotional-social intelligence skills occurred via observation and relationships with experienced nurses. Mentors, role models, and coaches were identified as key figures who fostered the emotional-social intelligence skill growth through practice experiences and educational activities. The majority of research has reported outcomes following education intervention and over a period of time. The relationships reported in this study are rarely examined. It is recommended that these relationships in nursing be studied further in relation to emotional-social intelligence development.

Future studies should expand the participant inclusion criteria to include the perspective of nursing faculty and the acute care registered nurse. In this study, frontline registered nurses provided first-hand accounts of the use and development of emotional-social intelligence skills based on years of experience. Examination of the perspectives of nursing faculty are important to identify the academic perspective and how it may or may not align with practice. These insights would add deeper understanding of each skill and further narrow the theory-practice gap. The perspectives of the acute care registered nurse

would add additional knowledge of the emotional-social intelligence skills used and the key characteristics of these skills. It is recommended that future studies be conducted with the aim of establishing emotional-social intelligence definitions specific for nursing.

Deliberate and guided inclusion of the development of the five factors of emotional-social intelligence in nursing clinical education needs to be further tested. Future studies should establish if the intentional development of these skills within the context of nursing leads to significantly measurable outcomes for the Minster five factors: self-awareness, empathy, stress tolerance, flexibility, and clinical decision making. It is recommended that future research examine if these five factors are correlated with academic performance outcomes such as measured clinical competency, grade point average, and first-attempt NCLEX-RN pass rates. Furthermore, evidence of successful transition to practice and retention would add to the growing evidence supporting emotional-social intelligence in nursing.

The Minster Five-Factor application process model. The Minster Five-Factor application process model was developed based on the Minster Five-Factor Model of Emotional-Social Intelligence for Nursing. This process model includes the essential emotional-social intelligence factors, as well as the relational processes of development as identified in this study. The emotional-social intelligence factors are represented as diamonds. Activities, defined as a step in the process, are represented by rectangles. The five emotional-social intelligence factors are self-awareness, empathy, clinical decision making, stress tolerance, and flexibility. The activities in the application process model are: engagement, role model, coach, mentor, professional development, and emotional and social intelligence development and use.

The entity is the beginning point and defined as the individual, group, or unit

being processed. The entity, with self-awareness, is able to employ engagement. Engagement can occur in multiple ways and the dotted arrows represent those connections that may or may not occur. The connections which enhance emotional-social intelligence development include role model, mentor, coach, and professional development. Engagement, alone or in combination with a connecting element, results in emotional and social intelligence development and use. The essential emotional-social intelligence factors used by nurses are empathy, stress tolerance, clinical decision making, and flexibility. The use and development of empathy improves clinical decision making. Based on previous research in nursing practice and findings from this study, it is hypothesized that the development and use of clinical decision making, stress tolerance, and flexibility will improve performance outcomes. The Minster five-factor application process model provides an way to further test findings from this study as presented in the emerging Minster Five-Factor Model of Emotional-Social Intelligence for Nursing.
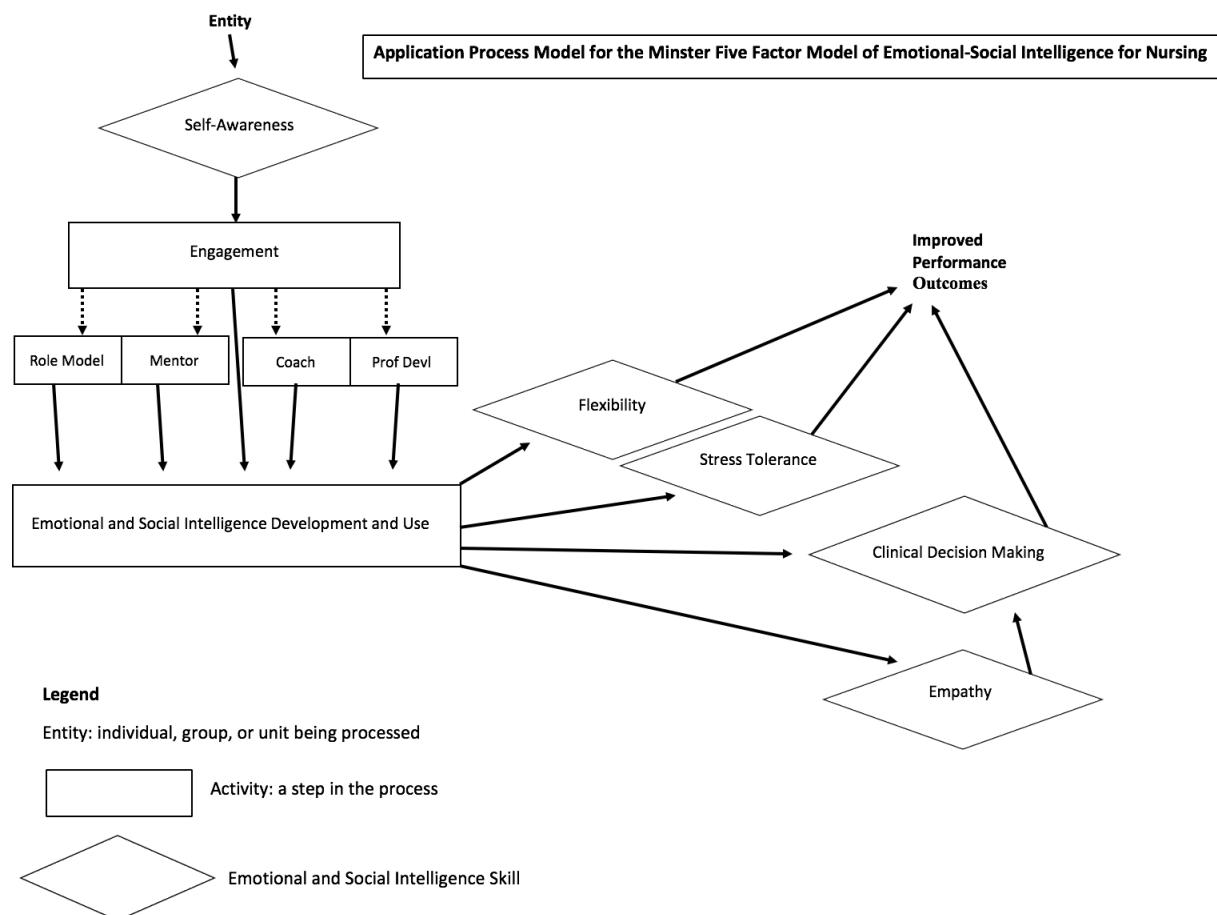
Figure 8. The Minster Five Factor application process model

Summary

This study adds to the growing body of knowledge concerning emotional-social intelligence in nursing. There is evidence to support the claim that emotional-social intelligence is positively associated with academic and workplace nursing performance outcomes. It is unclear, however, what to teach and how to effectively support emotional-social intelligence development in nursing students. The purpose of this study was to explore the most important emotional-social intelligence skills for nursing and how these skills are developed. Frontline nurse managers interviewed in this study identified four essential emotional-social intelligence skills for nursing practice. Self-awareness was

recognized to be an important factor for emotional-social intelligence development. Furthermore, managers indicated that relationships were key to the development of emotional-social intelligence alongside practice and educational activities.

The essential emotional-social intelligence skills identified by frontline nurse managers were: empathy, stress tolerance, flexibility, and problem solving. Findings from this study confirmed that empathy is an essential skill. Empathy was the only skill identified by all participants. Additionally, it was the theme with most support from the literature. Frontline nurse managers reported that registered nurses used empathy when making clinical decisions. Within the context of nursing, clinical decision making represented the emotional-social intelligence factor problem solving. Consistent with the literature, stress tolerance was primarily described within the context of the acute care setting, as well as the role and responsibilities of the registered nurse. Stress tolerance included physical and emotional characteristics. Likewise, flexibility was described as necessary for the environmental context and in relationship to the registered nurses' feeling, thinking, and behavioral responses.

This study found that emotional-social intelligence skills can be learned and developed. In this study, frontline nurse managers reported engagement as a critical factor for learning emotional-social skills. Without self-awareness and an emotional commitment to learn, the registered nurse was not able to demonstrate professional emotional development. Furthermore, the development of emotional-social intelligence skills was identified by themes attributed to relationships with the registered nurse. These relational themes were mentor, role model, and coach. The mentor was described as a relationship with a trusted individual. In this relationship, both parties were aware of the connection they shared. The role model was generally described as an informal

relationship and as an individual who was observed and imitated. A coach was an individual who provided instruction and training. The most common method a coach used to educate the registered nurse was debriefing. This reinforced the importance of the context of the clinical practice setting for emotional-social intelligence development. The last developmental theme, innate, was only related to emotional-social intelligence skill empathy. Evidence supported that empathy can be developed; however, it appears that registered nurses bring a certain measure of empathy to their work without any training.

The elements and process of emotional-social intelligence development were illustrated based on findings from this study. The process of development begins with the registered nurse, who is innately empathetic. In order for development to occur, engagement is required. Through practice experiences and educational activities, the registered nurse engages with mentors, role models, and coaches. The relationships with experienced nurses and the role they play in fostering emotional-social intelligence development were an important finding in this study. Existing literature has primarily focused on emotional-social intelligence outcomes related to various educational interventions as opposed to relationships. The process model of emotional-social intelligence contributes to the understanding of the Minster Five-Factor Model of Emotional-Social Intelligence for Nursing.

This study established the Minster Five-Factor Model of Emotional-Social Intelligence for Nursing. The concept of self-awareness was threaded throughout the core four factors of emotional-social intelligence identified from the theoretical model (Bar-On, 2006). Self-awareness was considered a foundational skill for emotional-social learning. It was common for participants to report self-awareness in relationship to the four essential skills: empathy, stress tolerance, flexibility, and clinical decision making.

Empathy was clearly identified as an innate skill that enhanced registered nurses' clinical decision making. Within the context of nursing, problem solving was defined as clinical decision making. Stress tolerance was interconnected with clinical decision making and flexibility. The characteristics of stress tolerance improved or declined based on the registered nurses' ability to be flexible and problem solve. Likewise, flexibility and appropriate clinical decision making positively impacted one's ability to manage stress.

In conclusion, this study provided further understanding on the use and development of emotional-social intelligence for nursing practice and nursing education. Based on an existing framework, an emerging model was developed specifically for nursing to highlight the essential emotional-social intelligence skills used in nursing practice. It was significant to identify the essential skills needed for nursing practice given the broad and complex nature of emotional-social intelligence. The knowledge generated in this study supported the important role of emotional-social intelligence for successful role performance in nursing. A narrower focus on the specific skills identified in this study and supported by the literature has the potential to increase the return on investment for emotional-social intelligence education in nursing.

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Appendix A

Consortium for Research on Emotional Intelligence in Organizations Copyright Policy

Appendix B

Demographic Survey Questions

Age
< 30
31 – 42
43 – 54
55 +

Gender
Male
Female
Other – please indicate your gender identity

Education, Highest Level Completed
Diploma
Associate's degree (2-year degree)
Bachelor's degree (4-year degree)
Master's degree or higher

Frontline Manager of an Acute Care Unit

Yes   No

Years of Nursing Experience as Registered Nurse

_____

Years of Nursing Experience in Managerial Role

_____

Appendix C

Interview Protocol

Project: Exploring Emotional-Social Intelligence in Nursing

Time of Interview:	
Date:	
Location and Surroundings: *Include Urban or Rural Setting*	
Pseudonym:	
Title of Interviewee Position:	
Audio Recording File Name:	

Introduction:
My name is April Minster and I am doctoral student at Bryan College of Health Sciences. I have worked in nursing education since 2007 and am interested in exploring emotional-social intelligence skills in nursing practice and how this information might be used to inform nursing education.

Demographic Survey	

The purpose of this study is to explore emotional-social intelligence skills and how they are developed. In this study, emotional-social intelligence is defined as "a cross-section of interrelated emotional and social competencies, skills and facilitators that determine how effectively we understand and express ourselves, understand others and relate with them, and cope with daily demands" (Bar-On, 2006, p. 14). [Emotional-Social Intelligence Factors Checklist/Handout]

The interview is expected to take approximately 60 minutes. Recall that I will be recording the interview, transcribing it verbatim, and using a pseudonym thereafter. Do you have any questions before we begin the interview?

Turn on the recording devices.	

Opening Question:
1. Tell me about your current position, role, and relationship with the registered nurses you oversee.

Content Questions:
Using this checklist, please identify the emotional-social intelligence factors you have observed the registered nurse use when performing their job functions. [ESI Factors Checklist/Handout].

Now, please identify and prioritize what you think are the top three essential ESI skills for registered nurse role performance.

2. Tell me about why you selected these three ESI skills. *Probe: Most common observed? Most important? Impact on patient outcomes?*

3. Describe how nurses use these three ESI skills. *Probe: What have you observed?*

4. Describe in what situations you have observed the nurse use these three skills. *Probe: Describe a situation/in what situations you have observed the nurse use [ESI skill].*

The next question is on how ESI skills are developed.

5. What factors do you think influence the development of ESI skills in nursing?

The next two questions are about new graduates and experienced nurses use of ESI skills.

6. Give me an example of a situation in which you have observed the new graduate use the ESI skills you identified as essential.

7. Give me an example of a situation in which you have observed an experienced nurse use the ESI skills you identified as essential.

Reminder - Probes:
"Tell me more (asking for more information)
I need more detail (asking for more information)
Could you explain your response more? (asking for an explanation)
What does "phrase" mean? (asking for an explanation)"
Source: Creswell & Creswell (2018) p. 191

Closing Instructions:
Thank you so much for your time. Remember that the interview information collected will be maintained in a locked office, and inside a drawer with a lock in which only I have a key. All interview data will be saved on a password protected computer. At conclusion of the study, the audio-recording will be deleted. Once I have the preliminary results, may I contact you to review your responses to make I have captured your interview information correctly.
Offer to send an abstract of the final study if requested.

Appendix D

Emotional-Social Intelligence Skills Checklist

Emotional-Social Intelligence: "a cross-section of interrelated emotional and social competencies, skills and facilitators that determine how effectively we understand and express ourselves, understand others and relate with them, and cope with daily demands" (Bar-On, 2006)

Bar-On, R. (2006). The Bar-On model of emotional-social intelligence (ESI). *Psicothema*, *18*, 13-25.

Checklist	The 15 Factors of the Bar-On Model of Emotional-Social Skills	
	Self-Regard	ability to look inward and accurately perceive, understand and accept ourselves
	Emotional Self-Awareness	ability to be aware of, identify and understand emotions
	Assertiveness / Emotional Self-Expression	ability to effectively and constructively express feelings and one's self in general
	Independence	ability to be self-reliant and free of emotional dependency on others
	Empathy	ability to be aware of and understand how others feel
	Social Responsibility	ability to identify with social groups, among friends, at work and in the community, and to cooperate with others in a constructive and contributing manner
	Interpersonal Relationship	ability to establish and maintain mutually satisfying relationships and relate well with others
	Stress Tolerance	ability to effectively and constructively manage emotions
	Impulse Control	ability to effectively and constructively control emotions
	Reality Testing	ability to objectively validate our feelings and thinking with eternal reality
	Flexibility	ability to adapt and adjust our feelings, thinking and behavior to new situations and conditions
	Problem-Solving	ability to effectively solve problems of a personal and interpersonal nature
	Self-Actualization	ability to set personal goals and the drive

		to achieve them in order to actualize our potential
	Optimism	ability to maintain a positive and hopeful attitude toward life even in the face of adversity
	Happiness / Well-Being	ability to feel content with one's self, others and life in general
	Additional Skills Observed	**Feel free to add additional skills you have observed and consider to be emotional-social intelligence skills based on the definition provided above**

Bar-On, R. (2013). *The 15 factors of the Bar-On model*. Retrieved from www.reuvenbaron.org/wp/the-5-meta-factor-and-15-sub-factors-of-the-bar-on-model/

Appendix E

Bryan College of Health Sciences Institutional Review Board Approval

Bryan COLLEGE OF HEALTH SCIENCES

BRYAN COLLEGE OF HEALTH SCIENCES
INSTITUTIONAL REVIEW BOARD
Notification of Action

Date of Notification: 6/18/2019

This letter pertains to IRB actions regarding:
    Title of Study/Project: Emotional Social Intelligence in Nursing
    IRB Number: #1906-001
    Submitted by: April Minster

Type of Review Performed:
    ____Exempt – Performed by_____
    __X_Expedited
    ____Full

Date of Review: 6/18/2019
Document(s) Reviewed: Request for Review; Informed Consent; Interview Protocol; Recruitment Materials; Demographic Survey; Site and Contact List (Appendix A); Emotional-Social Intelligence Skills Checklist/Handout; Faculty Approval Form; and NIH Training Certificates

Decision
The Bryan College of Health Sciences' IRB has made the following decision related to your study:

__X_APPROVED: Your study has been found to meet criteria necessary for the protection of human subjects as stated in the Code of Federal Regulations Title 45 Part 46. Data collection may start once all required IRB approvals are obtained.

____PENDING APPROVAL CONTINGENT ON MINOR CHANGES: Your study has been found to meet criteria necessary for the protection of human subjects as stated in the Code of Federal Regulations Title 45 Part 46; however minor changes are necessary to strengthen one or more part(s) of the study. Those minor changes are detailed below. Please resubmit the final amended *Request for Review, Informed Consent,* or any other necessary study documents. After submission of the final documents you will receive an approval letter with the approved, stamped informed consent document if required for the study/project.

____MUST BE RESUBMITTED WITH MAJOR CHANGES: Your study HAS NOT been found to meet all criteria necessary for the protection of human subjects as stated in the Code of Federal Regulations Title 45 Part 46. One or more major change(s) must be made as detailed below. **DATA COLLECTION MAY NOT BE STARTED** until those changes have been made and formal approval has been granted by the IRB.

Obligations to the IRB

The investigators of a study approved by the IRB must fulfill the following obligations in order to retain permission to conduct their study:

CONSENT FORM: If you submitted a consent form for approval, the approved consent will be returned to you marked with a red 'APPROVED.' **Colored copies** of that **approved** consent must be made and all participants enrolled in the study must sign one of those **colored consent forms**. The original, colored consent forms must be saved with the investigator's study documents. Each participant must be given a copy of the informed consent. The participant's copy may be a black and white copy of the original, colored informed consent.

PLANNED CHANGES TO THE STUDY: Any non-editorial change to an approved study/project must be submitted to the IRB for approval before initiation of the change except when necessary to eliminate immediate hazards to the participant(s). These changes include (but are not limited to):

- Names and roles of study/project personnel;
- The number of enrolled participants;
- Change to the methods used in the study/project;
- Change to the study/project's consent form;
- Additional method(s) used to recruit subjects (beyond those approved with the initial review);
- Proposed communication(s) to potential or enrolled subjects.
- Any change initiated prior to IRB approval (undertaken to eliminate immediate hazards to participants) must be reported as soon as possible to the Chair or Secretary of the IRB.

UNANTICIPATED PROBLEM OR ADVERSE EVENTS: The investigators of an approved study/project are required to submit to the IRB a full report of the following within two (2) business days of the occurrence:

- An unanticipated problem or adverse event occurring to one or more enrolled subjects including, but not limited to:
  - Any breach in confidentiality.
  - Physical or psychological harm.
  - Unresolved complaint of a participant, family member, or other individual.
  - Any other occurrence of an adverse nature related to participation in the study/project.
- Any deviation from the approved study/project protocol with the reason for the deviation and any consequences to the study/project participants or the integrity of the study/project's data.
- The withdrawal of any participant
- If a preliminary review of a study/project's data indicates the probability that continuing with the study/project will result in harm to one or more participants.

ONGOING AND FINAL REPORTS: The investigators of an approved study/project will submit a final report (using the IRB Final Report template) within sixty (60) days of the end of data collection. If an approved study has not completed data collection 12 months after the initial IRB approval date, the investigators must submit an Annual Report (using the IRB *Annual Review* template).

Ahern Dean, PhD, CRNA	6/18/2019
Secretary, Bryan College of Health Sciences' IRB	Date

Appendix F

Bryan Medical Center Administrative Approval for Research/Clinical Studies Committee

Bryan Health   Bryan Medical Center

July 15, 2019

April Minster
1535 S 52nd St
Lincoln NE 68506

Dear April,

On behalf of the Administrative Approval for Research/Clinical Studies Committee of Bryan Medical Center, I am pleased to inform you that the clinical study proposal entitled: "Exploring Emotional social Intelligence in Nursing" #432 has been approved.

The Administrative Approval for Research/Clinical Studies Committee provides a process for the review and approval of all research/clinical studies conducted at Bryan Medical Center, subject to IRB approval when appropriate. Objectives of this committee include: (a) reviewing all proposed clinical study/research proposals for congruence with the Mission of Bryan Medical Center; (b) assuring that the study is appropriate from clinical relevance, methodological and a human value's perspective; (c) minimizing duplication with other studies being conducted; (d) determining resource requirements and fiscal feasibility; and (e) assuring timeliness of education when appropriate. *This committee is not an Institutional Review Board (IRB).*

As principal investigator, you are responsible for informing this committee in writing when all pending items have been taken care of, of any changes, adverse occurrences or unanticipated problems, and submitting a final report which will be kept on file. You may also be asked to present the study outcomes/findings to selected groups.

April, we wish you much success with this study.

Sincerely,

Bobbi Clinch RN, BSN, CCRN-CMC
AARCS Chair

Appendix G

Participant Recruitment Email

Dear Nurse Manager:

You are being given the opportunity to participate in a research study titled: *Exploring Emotional-Social Intelligence in Nursing*. The purpose of this study is to explore emotional-social intelligence skills used by registered nurses.

Did you know there is evidence to support that emotional intelligence significantly impacts nursing workplace outcomes and role performance? Outcomes reported in the literature include improved measures of patient safety, higher patient satisfaction, and greater retention of nursing staff (Adams & Iseler, 2014; Basogul & Ozgur, 2016; Clancy, 2014).

You may qualify to participate in this research study if you are:

- a frontline nurse manager in medical-surgical or general acute care,
- responsible for direct patient care *and* supervision of registered nurses, and
- have at least 3 years' experience in your current role.

This study will include an interview and your answers will be used to explore emotional-social intelligence skills vital to the registered nurse role. Findings from this study will generate new knowledge of emotional-social intelligence skills in nursing.

If you decide to participate in the study, contact April Minster at 402-467-9056 or april.minster@bryanhealthcollege.edu to schedule an interview by [DATE]. The interview will be scheduled at your convenience and take approximately 60 minutes. Participants will receive a $5 coffee gift card in appreciation.

Participation in this study is completely voluntary. You can choose to not participate or leave the study at any time. Informed consent will be obtained before the interview. This study has been reviewed and approved by the Bryan Health College of Health Sciences Institutional Review Board. Attached is a copy of *The Rights of Research Participants* Brochure.

Sincerely,

April Minster EdD-C, MPH, MSN, RN
Bryan College of Health Sciences
Doctoral Student
402-467-9056
april.minster@bryanhealthcollege.edu

Appendix H

Informed Consent

Bryan COLLEGE OF HEALTH SCIENCES

ADULT CONSENT FORM

IRB protocol #:

Formal Study Title: Emotional Social Intelligence in Nursing

Participant Study Title: Exploring Emotional Social Intelligence in Nursing

Study Personnel: April Minster

april.minster@bryanhealthcollege.edu

1535 S 52nd St, Lincoln, NE 68506
402-467-9056

Key Study Information: The purpose of this study is to explore emotional-social intelligence skills used by registered nurses.
- Adult individuals age 19 years or older who are frontline nurse managers in acute care, with a minimum of three years' experience in their current position, are eligible for this study.
- This study will require a one-on-one visit that may last approximately 60 minutes.
- The risks to this study are minimal and may include temporary discomfort from emotional responses when answering interview questions and/or loss of time. There is a risk for loss of privacy and confidentiality if data are misplaced or lost.
- You will receive a $5 gift card to a local coffee shop for your participation.
- You will be given a copy of this consent form.
- Your participation is voluntary and you may decide to stop participating at any time.
- For purposes of this study, emotional-social intelligence is defined as "A cross-section of interrelated emotional and social competencies, skills and facilitators that determine how effectively we understand and express ourselves, understand others and related with them, and cope with daily demands" (Bar-On, 2006, p. 14)

Invitation: You are invited to participate in this research study. The information in this form is written to assist you with deciding whether or not to participate. Please ask if you have any questions.

Why are you being asked to be in this research study? You are being asked to be in this study because you are a registered nurse in the role of frontline manager in an acute care setting and have been in the role for at least three years.

What is the reason for doing this research study? Emotional-social intelligence is a developing concept in nursing practice and education. There is evidence to support that the use of emotional-social intelligence skills are correlated with educational outcomes such as success in nursing studies. Workplace outcomes such as nursing performance level and professional development are also positively correlated with emotional intelligence. The purpose of this study is to explore the views of frontline nurse managers, in acute care settings, regarding the emotional-social intelligence skills developed and used by registered nurses. Findings from this

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study may be used by nursing academia to inform curriculum on the topic of the formation of professional identity.

What will be done during this research study? This research study requires an in-person interview at a mutually agreeable and confidential location. The interview is expected to last approximately 60 minutes. In this study you will be asked to complete a checklist and answer questions about the development and use of emotional-social intelligence skills in nurses you supervise. You will be provided a definition of emotional-social intelligence and a list of emotional-intelligence skills. You will complete a checklist indicating the emotional-social intelligence factors you have observed the registered nurse use when performing their job functions. In addition, you may provide additional skills to the list. From that list, you will be asked to identify and prioritize what you think are the top three essential ESI skills for registered nurse role performance Next, you will be asked to share observations and describe situations related to emotional-social intelligence skills and the nurses you supervise. The interview will be recorded, and later transcribed. The transcribed data will be analyzed and with your approval, you may be contacted to verify preliminary results. Findings from this study will be used to further understand emotional-social intelligence skills in nursing.

How will my data/samples/images be used? Participant data will not be shared with others. Participant data will be de-identified and retained for future use. De-identified data may be shared with the principal investigator's three dissertation committee members. Personal information that could identify you will be removed. Research findings may be published or disseminated in a public venue such as poster or podium presentations.

What commercial benefits will I get from research conducted on my data/samples/images? Your data will not be used for commercial profit.

What will happen to my data/samples/images once the study is completed? After completion of the study, your de-identified data will be stored on an encrypted flash drive in a locked desk, located in a locked office. Only the principal investigator has a key to unlock the desk.

Will I be notified of the findings from the research study? Upon request, findings from the data collected and analyzed will be shared in the form of a research findings brief.

What are the possible risks of being in this research study? The risks to participation in this study may include loss of personal time and temporary discomfort in the form of mild psychological distress while completing a one-on-one interview. There is risk for loss of privacy or confidentiality should your information be misplaced or lost.

If appropriate, what is the approximate number of participants in this research study? 20

What are the possible benefits to you? As a participant, you may gain new knowledge of emotional-social intelligence and its usefulness in clinical practice. However, you may not gain any benefit from participating in the research study.

What are the possible benefits to other people? The potential benefits associated with the research may include greater theoretical knowledge of emotional-social intelligence in nursing practice. Knowledge generated from this study may provide further understanding of emotional-social intelligence in nursing practice.

What are the alternatives to being in this research study? The alternative is to not participate in this research with no adverse impact.

What will it cost you to be in this research study? There is no cost to you to be in this study. You will not be reimbursed for your time.

Will you be rewarded or compensated for being in this research study? At the beginning of the interview, you will receive a $5.00 gift card to a local coffee shop in appreciation of your participation.

What should you do if you have a problem during this research study? Your well-being is the primary concern of the principal investigator. If you have a problem as a direct result of being in this study, you should immediately contact one of the individuals listed at the end of this consent form. If you are feeling distressed and need to talk with a professional, contact your healthcare provider, or an employee assistance program available to you. Healthcare services rendered are at your own cost. You do not give up any legal rights by agreeing to participate in this study.

How will information about you be protected? Reasonable steps will be taken to protect your privacy and the confidentiality of study data. The only person who will have access to your research records are the principal investigator.

What are your rights as a research participant?

You have rights as a research participant. These rights have been explained within this consent form. You have also been given the Rights of Research Participants brochure. If you have any questions concerning your rights or complains about the research, contact the investigator or the Institutional Review Board (IRB):

> Bryan College of Health Sciences
> Institution Review Board Chair
> Telephone: 402-481-3801
> Email: IRB@bryanhealthcollege.edu

What will happen if you decide not to be in this research study or decide to stop participating once you start? You can decide not to be in this research study, or you can stop being in this research study ("withdraw") at any time before, during, or after the research begins. Deciding not to be in this research study or deciding to withdraw will not affect your employment, relationship with the investigator, or with Bryan College of Health Sciences.

Documentation of Informed Consent

You are freely deciding to participate in this research study. Signing this form means that:
1. You have read and understood this consent form.
2. You have had the consent form explained to you.
3. You have had your questions answered.
4. You have decided to be in this research study.

If you have any questions during the study, you should talk to one of the investigators listed below. You will be given a copy of this consent form to keep for your records.

Participant's signature: _____

Date: _____   **Time:** _____

My signature certifies that all the elements of informed consent described in this consent form have been explained fully to the participant. In my judgment, the participant possesses the legal capacity to give informed consent to participate in this research study and is voluntarily and knowingly providing informed consent to participate.

Signature of Person Obtaining Consent: _____

Date: _____   **Time:** _____

Authorized Study Personnel

Principal Investigator:
April Minster MPH, MSN, RN
Bryan College of Health Sciences
1535 S 52nd St, Lincoln, NE 68506
402-467-9056

Co-investigator OR Committee Advisor:
Dr. Julie Skrabal, RN, CNE
Bryan College of Health Sciences
1535 S 52nd St, Lincoln, NE 68506
402-481-8850
julie.skrabal@bryanhealth.org

Research Team Member(s), if applicable: Not applicable.

Appendix I

Verification of External Audit

Bryan COLLEGE OF HEALTH SCIENCES

November 26, 2019

On November 25, 2019, an audit trail was conducted of April Minster's qualitative dissertation titled, "Essential Emotional-Social Intelligence Skills for Nursing". As the chair of April Minster's dissertation committee, I completed this audit per request. Based on my findings, I attest that trustworthiness, credibility, and dependability of the findings meet the standards for quality data management.

Based on my findings, the study consistently followed the purpose of the study, research questions, data collection procedures, and established grounded theory processes. The study also met the procedures and guidelines as approved by the Institutional Review Board. MAXQDA and manual coding were when organizing themes that emerged through analysis of the data. The themes identified flowed directly from the transcribed documents that were in interview format. The procedures utilized were clear, transparent, and well documented.

Sincerely,

Julie Skrabal, EdD, RN, CNE

Julie Skrabal, EdD, RN, CNE
Associate Professor, Graduate Nursing
Bryan College of Health Sciences
1535 South 52nd Street
Lincoln, NE 68506