IMPROVING THE SOCIO-EMOTIONAL COMPETENCE OF ACADEMIC NURSE

EDUCATORS: AN EXPERIMENTAL STUDY

by

Helen Bailey Freeman

Liberty University

A Dissertation Presented in Partial Fulfillment

Of the Requirements for the Degree

Doctor of Philosophy in Nursing Education

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ABSTRACT

An academic nurse educator with a high level of socio-emotional competence (SEC) can create an inviting learning environment that promotes the highest level of achievement from students. The purpose of this two-group pretest-posttest experimental study was to determine the extent of effectiveness of socio-emotional intelligence education and a reflection-guided professional development plan in improving the socio-emotional competence of academic nurse educators. The Bar-On emotional social intelligence (ESI) conceptual model and the Purkey invitational theory were frameworks used to guide the study. The Emotional Quotient Inventory (EQ-i 2.0) was used as the data collection instrument to measure the pretest and posttest socio-emotional scores. There was a total of 58 participants, 29 in each group. The Statistical Package of Social Sciences (SPSS) software was used to conduct a one-way analysis of covariance (ANCOVA). The study findings revealed an increase in the total SEC scores in both groups between pretest (M = 97.95) and post-test (red group M = 103.7; blue group M = 102.9). There was no statistically significant difference found in the total EI scores between the two groups post-intervention. However, there was clinical importance noted. For example, the findings from the study support that the SEC of academic nurse educators can be improved through education. Future research should focus on the most effective method of education and retention of knowledge over time to improve competence.

Keywords: emotional intelligence, social intelligence, socio-emotional competence, nursing education, professional development plan, reflective practice

Dedication

First, I dedicate this study to all academic nurse educators who invest their time, knowledge, and love into each student. The educator impacts the lives of many patients by providing a high-quality education that helps students reach their highest level of potential. The socioemotional competence differentiates an excellent educator from the rest.

To my husband, Brian, who has supported me through this journey, provided distractions that kept me focused, and understood even when he did not know why. To my two amazing daughters, Morgan and McKenzie, who are now adults. They inspire me daily to be a better person and look for the good in people. Growing up with a nurse for a mom is tough. The rules were simple, love God, look out for those who are less fortunate or that cannot care for themselves, and if you are going to be dumb, you better be tough! To my fur babies that gave me unconditional love each step of the way. To my prayer warriors, who prayed without ceasing for me.

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Table of Contents

List of Tables

List of Abbreviations

Academic Nurse Educators (ANE)

American Association of Colleges of Nursing (AACN)

Analysis of Covariance (ANCOVA)

Artificial Intelligence (AI)

Collaborative Association of Social Emotional Learning (CASEL)

Continuing Professional Development (CPD)

Critical Thinking (CT)

Emotional Intelligence (EI)

Emotional Quotient Inventory (EQ-i)

Emotional-Social Intelligence (ESI)

Multi-Health Systems Incorporated (MHS)

National Academies of Sciences, Engineering, and Medicine (NASEM)

National Council Licensure Examination (NCLEX)

National League for Nursing (NLN)

Professional Development Plan (PDP).

Registered Nurse (RN)

Social Intelligence (SI)

Socio-Emotional Competence (SEC)

World Health Organization (WHO)

CHAPTER ONE: INTRODUCTION

Overview

The impact a nurse educator has on each student and the nursing profession goes far

beyond the classroom and the role requires a multitude of competencies. The purpose of this

research study was to determine if the socio-emotional competence (SEC) of academic nurse

educators (ANE) can be improved through professional development using an educational

webinar and the creation of a reflection-guided professional development plan (PDP). The PDP

was focused on strategies in the use of SEC to improve teaching practices. This introduction

provides background information about the necessity of competencies and the significance of

SEC in nursing education. The historical, social, and theoretical context for the issue will be

explored. The problem statement describes the lack of information currently in the literature

related to the SEC of the ANE and a purpose statement provides a clear connection for how this

study will address the problem. The significance of the study and contributions to the body of

nursing knowledge are also discussed. The introduction concludes by providing the research

question that was used to guide the study and the definitions of common terms found in the

study.

Background

The transformation of healthcare, influenced by advancements in technology, has

necessitated the reshaping of higher education. Robinson (2021) noted that the high cost and

decreasing admissions to undergraduate programs over the past decade have created a financial

burden that is not sustainable in higher education. According to Maldonado (2018), the cost of

college has increased at a rate eight times higher than wages. The landscape of nursing education

is changing, and the nurse educator is facing unprecedented challenges with providing a cost-

effective high-quality education for the next generation of nurses. An additional challenge is the complexities of patient care necessitate new graduates transition into practice with good clinical judgment skills prompting revisions of the nursing licensure exam Robinson, 2021). A national spotlight is on the projected nursing shortage and the lack of qualified nurse educators directly impacting the availability of nurses (Gazza, 2019). In 2021, almost 92,000 qualified applications for nursing programs were turned away because of the lack of faculty and resources to support students (American Association of Colleges of Nursing [AACN], 2022). The need to recruit and retain competent ANEs has never been greater to reduce disparities and achieve global health equity and wellness (National Academies of Sciences, Engineering, and Medicine [NASEM], 2021). In addition, evidence-based strategies are needed to provide the support needed for ANEs to excel in their role and provide a high-quality and cost-effective education.

The ANE has the privilege of making a difference in the life of each student. Education is a rewarding but demanding profession, and the associated stress often leads to burnout and ANEs leaving the role (Lozano-Peña et al., 2021). With multiple competing priorities in nursing education, the ANE often struggles to develop the skills, knowledge, and attitudes that reflect being competent and effective in the role (Fitzgerald et al., 2020). These factors contribute to faculty shortages and place the quality of nursing education in jeopardy. Nursing education leaders must devote time and resources to faculty formation and prepare the ANE to thrive in the role (Young & Godfrey, 2021). The faculty formation must go beyond orientation and focus on the holistic preparation of the ANE (Benner et al., 2010). SEC is essential to all other areas of the ANE practice (Wu et al., 2019). SEC and resilience are positively correlated (Chikobvu & Harunavamwe, 2022). The improvement of SEC and associated resilience can help the ANE develop effective coping skills, manage stress, maximize role satisfaction and effectiveness

(Nurse-Clarke & Sockol, 2022). The well-being of the ANEs could have an influence on their level of competence.

All roles within the nursing profession require ongoing competence and a high level of proficiency. Competence is a broad concept comprised of the visible characteristics of skills, knowledge, and attitudes, plus the attributes not so easily seen, like personality traits (i.e. emotional intelligence, personal identity, and motivation; Satoh et al., 2020). The National League for Nursing (NLN) and the World Health Organization (WHO) provide the most common standards or competencies that the ANE is accountable for upholding (Lemetti et al., 2022). The competencies have some minor differences in wording but are similar in intention. Nursing educators in the United States predominantly use the NLN competencies as a basis for practice (Salminen et al., 2021). An urgent need to provide ongoing structured support for the ANE to develop the necessary competencies has been noted internationally (Satoh et al., 2020). The ANE competence is essential to excellence in nursing education (NLN, 2022a). A global need exists for the ANE to have expert-level competence to improve the quality of nursing education and adequately prepare nursing graduates (Satoh et al., 2020). A variety of instruments used by the nursing educator, students, nursing program leaders, and mentors have been developed to assess the ANE competence in teaching pedagogy, nursing practice knowledge, and leadership, but none of the instruments have provided an objective assessment of SEC (Mikkonen et al., 2020). An opportunity exists for the creation of a comprehensive and systematic competency evaluation method that examines both the observable traits and those that may be more difficult to observe (Lemetti et al., 2022).

The ANE plays a key role in the competence of new graduate nurses. Salminen et al. (2021) found that nursing students that evaluate their own competence as high also evaluate an

ANE's competence to be high. The competencies of nursing graduates are outlined by the

AACN (2021) to ensure students can provide high-quality safe patient care. The AACN also

supports and encourages nursing programs to transition to a competency-based approach to

education. A competency-based educational approach provides "a system of instruction,

assessment, feedback, self-reflection, and academic reporting that is based on students

demonstrating that they have learned the knowledge, attitudes, motivations, self-perceptions, and

skills expected of them as they progress through their education" (AACN, 2024, para 1). In an

attempt to improve competence and practice readiness, a growing trend in nursing education is

the shift to competency-based education (Hodges et al., 2019). Despite the ongoing efforts to

transform nursing education, new graduates continue to transition into practice without the entry-

level competencies needed to provide safe care (Kavanagh & Sharpnack, 2021). Limited

attention has been given to exploring the correlation between the level of competence of the

ANE and student outcomes and achievement of the desired level of competence (Järvinen et al.,

2021).

The ANE, in collaboration with students, creates a learning environment that facilitates

optimal outcomes and student preparation. When the ANE utilizes SEC successfully, an inviting,

healthy academic environment is cultivated for student learning (Ireland, 2022). The level of

involvement in the learning process is a key factor in the student's achievement of the learning

outcomes and competencies needed for practice (Naiker et al., 2022). The educator-student

relationship is a key factor in the involvement of the student in the learning process, and their

connection with the learning environment (Hudson & Carrasco, 2017). Over time, the ANE

hones the skill set with the intentional use of SEC. Consequently, there appears to be an

effortless creation of a learning environment that facilitates students' maximum level of

potential.

      The learning process is dynamic and ongoing. The social and emotional learning process helps an individual gain the skills, attitudes, and values required to develop SEC (Elias, 1997). Both social and emotional intelligence are essential components of SEC and the definitions of both vary depending on the source. Social intelligence (SI) was originally defined as "the ability to understand, manage people, and to act wisely in human relations" (Thorndike, 1920, p. 228). Emotional intelligence (EI) is 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. 5). SEC has been studied for many decades and interest in the topic has increased in the healthcare disciplines over the past 30 years. The significance of EI in nursing and nursing education has been studied extensively (Dugué et al., 2021). Very little is known however about the significance of an educator using SEC and the principles of invitational education to create a learning environment that maximizes the potential of nursing education (Khassawneh et al., 2022).

Historical Context

      Nursing education must evolve to meet the complex healthcare needs of society. Many calls have been made over the past several decades to reform nursing education due to the complexities of patient care, socio-political influence, and the increasing theory-to-practice gap noted in nursing graduates (Robinson, 2021). A call for reform was made over a decade ago by Benner et al. (2010) following the Carnegie study in 2009, part of the Carnegie's Preparation for the Professions Program. The need to improve practice readiness to provide care to complex patients and improve the health of society were two main drivers for this call for reform (Benner, 2012). Building on the work of the Carnegie study, the NASEM, formerly known as the Institute

of Medicine, have published several reports about the future of nursing emphasizing the need to transform nursing education. The most recent report, from 2021, outlined the goals for the nursing profession until 2030, also highlighted the imperative need to transform nursing education (NASEM, 2021).

Social Context

Each call for nursing education reform has included an essential need to improve the preparation of nurses to practice in a complex healthcare environment (Kavanagh & Sharpnack, 2021). The effective preparation of nurses requires the ANE to continually improve the core competencies for the role. The competencies include "facilitation of learning, learner development and socialization, development of curricula, assessment and evaluation of learning, being a change agent and leader, scholarship, and working within an educational environment" (NLN, 2022a, para 2). The proficiency of the ANE in using SEC in all areas of teaching help an educator achieve pedagogical effectiveness and create an active learning environment (Wu et al., 2019).

The technologies used in healthcare evolve rapidly, requiring nurses to frequently adapt and integrate them into practice quickly. The digital disruption is the latest wave of information technology that can improve the quality and safety through the implementation of evidence-based healthcare (El Khatib et al., 2022). The digital disruption in healthcare has created an additional gap in practice readiness and driven the need for new competencies in nursing (Alakrash & Razak, 2022; Kavanagh & Sharpnack, 2021). A shift to community-based healthcare has prompted an increased use of artificial intelligence (AI) to support the care being provided remotely (Hinkle et al., 2020). The use of AI technology allows for the assimilation of big data supported by machine learning and artificial neural networks to support decision making

in healthcare (Kwak et al., 2022). The next generation of nurses must be prepared to be

competent and easily adapt to new technologies underpinned with AI (Shang, 2021). Educators

are slow to adapt to new technologies and often rely on teaching pedagogies that do not support

effective student preparation (Grainger et al., 2021). These changes, combined with uncontrolled

cost and public demand for accountability and quality in higher education, necessitate that

nursing education pivot to a personalized, adaptive approach founded in the neuroscience

concepts of learning (Hinkle et al., 2020; Kavanagh & Sharpnack, 2021). The use of SEC by the

ANE facilitates the use of spaced learning and chunking of information, both key neuroscience

concepts of learning, based on response to individual student needs (Kelter et al., 2019).

Theoretical Context

The definitions and measurement of SI and EI have varied and over time the two

concepts have been integrated into SEC. The concept of SI was first noted in the research of

Thorndike around 1920, but problems with inaccurate measurement of SI and the shift to the

behaviorism paradigm put further SI research on hold. The study by Guilford and Bandura on

social learning in the 1960s generated new interest in the field of SI (Lozano-Peña et al., 2021).

Research on EI has been primarily based on three main conceptual models: ability model, traits

model, and the Tripartite model (Dugué et al., 2021). The ability model was proposed in the

1990s by Mayer and Salovey and evolved from Gardner's theory of multiple intelligences

developed in 1983 (R. Smith et al., 2018). The ability conceptual model encompassed four

dimensions: perceiving emotions, thoughts being facilitated by emotion, assimilating emotions,

and the management of emotion (Dugué et al., 2021). The ability model focused on cognitive

ability and was supported by empirical evidence (Kanesan & Fauzan, 2019). The traits

conceptual model is a combination of social skills and personality traits (Bar-On, 2006). The

traits model is comprised of intrapersonal and interpersonal skills, adaptability, stress

management, and general mood (Lozano-Peña et al., 2021). The Tripartite model includes

knowledge, abilities, and traits levels and may be useful in nursing education with the inclusion

of the concepts from the other two models (Dugué et al., 2021). Research on SEC has been

founded in five theoretical models: the model of emotional regulation developed by Gross; the

Mayer and Salovey EI model; Bar-On's EI model; the prosocial model by Jennings and

Greenberg; and the Collaborative Association of Social Emotional Learning (CASEL) model of

social-emotional learning (Lozano-Peña et al., 2021).

The preparation of the next generation of nurses will require the ANE to have expert-

levels of competence in teaching, nursing, and SEC. Their SEC is foundational to all the other

teaching competencies and essential to quality education. A systematic method of supporting the

ANE in developing SEC competence is needed in academic institutions. Limited information

found in the literature about the ANE SEC and effective strategies to improve SEC to facilitate

an inviting learning environment. Additional research on this topic could provide evidence to

support nursing programs in improving educational quality and effectiveness.

Problem Statement

The ANE is responsible for providing a high-quality education that results in students

being well prepared for the transition into practice. The next generation of nurses must be

competent to practice safely in an ever-changing healthcare environment (Kavanagh &

Sharpnack, 2021). The competence of the ANE is a key factor in determining the quality of

education and the development of the necessary competencies in nursing students is dependent

on the ANE developing comprehensive competencies (Satoh et al., 2020). SEC is foundational to

all the other competencies needed by the ANE to provide a quality educational experience (Wu

et al., 2019).

An educator in higher learning institutions who has SEC quickly recognizes student needs, effectively communicates information, builds trusting relationships, and cultivates a learning environment that promotes student success (Khassawneh et al., 2022). Still, insufficient evidence available regarding the impact a nurse educator's SEC has on student outcomes (Järvinen et al., 2021). The studies that have been conducted on the benefits and ways to improve SEC in nursing education have been focused on the student (Lozano-Peña et al., 2021). The problem is that research studies have not addressed the SEC of ANEs.

Purpose Statement

The purpose of this experimental study was to determine the degree of effectiveness of a pre-recorded EI education webinar and the creation of a reflection-guided professional development plan on improving SEC of the ANE. The independent variables for the study were the pre-recorded EI education in webinar format with a reflection-guided PDP and a written EI education activity (see Appendix E). EI education is the process of providing information to improve knowledge and skills in "determining how effectively we understand and express ourselves, understand others and relate with them, and cope with the daily demands of life" (Bar-On, 2006, p. 14). The dependent variable for the study was the SEC scores. The SEC is a "self-report measure of emotionally and socially intelligent behavior" (Bar-On, 2006, p. 13). The sample was the ANE's teaching in nursing programs in three states located in the southern region of the United States.

Significance of the Study

Competence in nursing is paramount to the safety of those entrusted in our care. As noted by Salminen et al (2021), the ANE plays a key role in helping students achieve entry-level

competence. To supply the nurses needed to offset the projected shortage of almost two hundred thousand nurses by 2030, the ANE must continually work to improve their own competence (AACN, 2022). SEC is important to all areas of the teaching practice (Wu et al., 2019). This study provides evidence to support the effectiveness of EI education in improving the SEC in ANEs.

A small number of studies, with mixed results, have examined SEC and teaching performance, indicating additional studies are warranted (Kotsou et al., 2019). This study adds empirical evidence about the effectiveness of education and the creation of a reflection-guided PDP to improve the SEC of an ANE. Higher-learning institutions vary in how the ANE is oriented and supported in the role. This variation can influence the quality of education and retention of the ANE (Rogers et al., 2020). This study provides information that underscores the necessity for nursing programs to include SEC in recruitment and retention processes. The findings can also be used by leaders in nursing education to provide the support and resources needed to continually improve the ANEs SEC.

Research Question

The research question used to guide the study:

RQ1: To what extent, is there a difference in the socio-emotional competence (SEC) scores for ANEs that complete EI education presented as a pre-recorded webinar and the creation of a reflection-guided professional development plan compared to ANEs that complete EI education in written format?

Definitions

1. *Competence-* is an expected level of performance that integrates knowledge, skills, abilities, and judgment (American Nurses Association, 2018).

2. *Continued professional development (CPD)-* the ongoing learning process involving reflection by a professional on personal competence, identification of opportunities to improve, and actively working to further develop the necessary competencies (Smith-Glasgow et al., 2019).

3. *Emotional intelligence (EI)-* the capacity for recognizing our own feelings and those of others, for motivating ourselves, and for managing emotions well in ourselves and in our relationships (Goleman, 2006).

4. *Emotional intelligence education-* the process of providing information to improve knowledge and skills in "determining how effectively we understand and express ourselves, understand others and relate with them, and cope with the daily demands of life" (Bar-On, 2006, p. 14).

5. *Emotional labor-* the effort involved in managing feelings when the work role specifies that particular emotions should be displayed and others should be hidden (Morris & Feldman, 2020).

6. *Faculty formation-* the psychological development of the nurse educator in transitioning to a subset of the nursing profession that includes agency, commitments, practice capacities, and meaning about educating future nurses (Benner et al., 2010).

7. *Reflection-guided professional development plan-* the process of critical evaluation and self-assessment on skills and competencies to identify opportunities of improvement that result in an individual plan for further professional development (Drude et al., 2019).

8. *Resilience-* the capacity to respond to stress in a healthy way such that goals are achieved at minimal psychological and physical cost (Manomenidis et al., 2019).

9. *Social and emotional competence (SEC)-* the ability to understand, manage, and express the social and emotional aspects of one's life in ways to enable the successful management of life tasks such as learning, forming relationships, problem solving, and adapting to complex demands (Elias, 1997).

10. *Teacher social-emotional competence-* Effective management of intrapersonal and interpersonal social and emotional experiences in ways that foster one's own and others' thriving. Social-emotional competence is operationalized by individuals' social–emotional basic psychological need satisfaction, motivations, and behaviors (Collie & Perry, 2019).

CHAPTER TWO: LITERATURE REVIEW

Overview

Chapter Two presents a discussion of the conceptual model and theoretical framework for the study and a review of the recent literature development of the ANE needed to improve all competencies including SEC. The conceptual model used was the Bar-On ESI and the theoretical framework used was from Purkey's invitational theory. The review of literature provides an overview of SEC in education, the importance of SEC in higher education, SEC in nursing, clinical judgment, SEC to promote nursing well-being, collaboration and teamwork, conflict management, relational leadership, the influence of SEC in nursing education on academic success, critical thinking, academic success, clinical competence, culture and diversity, empathy, integration of SEC in nursing education, and the continuous professional development of the ANE needed to improve all competencies including SEC.

Conceptual and Theoretical Framework

This research study was guided by the Bar-On (1997a) emotional-social intelligence (ESI) conceptual model and Purkey's (1978) invitational theory. Bar-On (1997a) viewed EI as non-cognitive abilities and skills the influence the competence of an individual to cope successfully with the demands of life. The Bar-On ESI model (2006) includes five primary domains: "intrapersonal, interpersonal, adaptability, stress management, and general mood" (p.14). The model provides the framework to determine how well the ANE understands and expresses themselves, their relationship with others, and the management of the daily stressors in life. The Bar-On ESI model has been used to guide numerous studies that have investigated SEC competence (Lozano-Peña et al., 2021). The ANE creates a positive learning environment for students by developing caring and trusting relationships. According to Goleman (2006), those are

behaviors exhibited by ANEs with high SEC.

The ANE is responsible for intentionally creating a learning environment that supports students in reaching their fullest level of potential (Watts & Hodges, 2021). The invitational theory by Purkey (1978) seeks to explain phenomena about human interactions and the intentional creation of an environment where individuals are supported in realizing their fullest potential. According to Green et al. (2018), the use of the five domains (people, places, policies, programs, and processes) of the invitational theory can be used in higher education in conjunction with SEC to create an optimal learning environment.

Bar-On ESI Model

Bar-On (2006) credits the ongoing development of the ESI model to the early work completed by Darwin on the "expression of emotion for survival and adaptation" (p. 14). Bar-On explained that the ESI model emphasized emotional expression and the use of SEC to accomplish the outcome of effective adaptation. According to Bar-On (2006), Edward Thorndike's (1920) description of social intelligence and David Wechsler's observations about the factors that shaped intelligent behavior also influenced the model. Bar-On (2006) used the scientific research conducted by Sifneos on alexithymia to visualize a psychologically unhealthy ESI and Appelbaum's conceptualization of psychological mindedness to visualize healthy ESI. The discovery of the neuroscience to support ESI prompted some of the later revisions to the model (Bar-On, 2006).

The Bar-On ESI model, originally developed in 1997, proposed that "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 ESI model

was operationalized with the Emotional Quotient Inventory (EQ-i), an instrument developed to measure socially and emotionally intelligent behaviors and provide a measure of SEC (Bar-On, 2006).

The Bar-On ESI model (see Appendix B) includes five components: "intrapersonal, interpersonal, adaptability, stress management, and general mood", that reflect the competencies, skills, and facilitators needed by an individual to be socially and emotionally intelligent (Bar-On, 2006, p. 14). In 2000, the Bar-On ESI model was revised, and the original 15 elated factors were changed to ten related factors and five facilitators of SEC that align with the primary competencies. The 10 related factors include "self-regard, emotional self-awareness, assertiveness, empathy, interpersonal relationships, problem-solving, flexibility, reality testing, stress tolerance, and impulse control"; the five facilitators are "self-actualization, independence, social responsibility, optimism, and happiness" (Bar-On, 2006, p. 17).

The intrapersonal domain examines an essential first step in SEC (Bar-On, 2006). The ANEs, through self-examination, must have a clear understanding of their personal strengths and areas where opportunities for improvement exist. The expression of thoughts and feelings should be framed in a constructive manner. The key related factors associated with intrapersonal competence are self-regard, emotional self-awareness, and assertiveness (Bar-On, 2006). Students and colleagues carefully observe how the ANEs perceive themselves and models intrapersonal competence.

According to Bar-On (2006), competence in the interpersonal domain reflects individuals' ability to recognize and effectively manage the emotions and needs of those around them. Empathy and interpersonal relationships are related factors in achieving interpersonal competence (Bar-On, 2006). These are essential skills for the ANE with the focus shifting to

competency-based education and personalized student learning (Kavanagh & Sharpnack, 2021). Facilitating active learning was found to be an important competency for an ANE, and SEC provides the foundational skills to create an environment that stimulates deep thinking and student involvement (Satoh et al., 2020).

The stress management domain refers to the ability to regulate and manage emotions and includes the factors of stress tolerance and impulse control (Bar-On, 2006). As noted by Bar-On (2006) these two factors relate to the effective and constructive management and control of emotions. Bar-On described adaptability as the competence required for effective change management. The factors associated with adaptability are reality-testing, flexibility, and problem-solving. The reality-testing refers to the ability to verify personal feelings with objective external cues and accurately evaluate a situation; flexibility involves adapting personal feelings and thoughts to changing situations; and problem-solving is effectively managing personal and interpersonal dilemmas (Bar-On, 2006). The general mood associated with SEC relates to self-motivation and the ability to be optimistic, to enjoy oneself and others, and to feel and express positive feelings (Bar-On, 2006).

According to Bar-On (2006), one of the key facilitators for SEC is self-actualization. Self-actualization is a life-long process of striving to achieve your fullest potential through the motivation to establish and achieve goals. Bar-On found that SEC influenced this process by an individual knowing who they are as a person, their aspirations in life, good problem-solving skills to make independent decisions, and the assertiveness to follow-through with the personal decisions. An additional finding from the study indicated that optimism and happiness were also needed for individuals to reach their full potential and lead a meaningful life (Bar-On, 2006).

Purkey's Invitational Theory

Invitational theory provides a framework for the effective use of SEC to create an optimal learning environment. The invitational theory was originally developed by Purkey (1978) to provide a better understanding about how people relate to each other and the influence of those relationships on success or failure. Invitational theory has been used to provide a common language that can guide educational improvements (Purkey, 1991). Contributions from Novak, Schmitt, and Siegel have led to further development and operationalization of the theory over the past five decades (Purkey & Novak, 2015). The theory, which evolved from a grant-funded project to humanize the educational process, has been widely used in primary and secondary education (Matyo-Cepero et al., 2017).

Invitational theory includes four assumptions:

(a) people are able, valuable, and responsible and should be treated accordingly; (b) education is a cooperative, collaborative activity where process is an important as product; (c) people possess untapped potential in all areas of human endeavor; (d) human potential can best be realized by places, policies, processes, and programs specifically designed to invited development, and by people who are intentionally inviting with themselves and others, personally and professionally. (Purkey, 1991, p. 2)

Invitational theory is established on the foundations of democratic ethos, perceptual tradition, and self-concept theory, and these provide purpose and direction for the five elements (care, trust, respect, optimism, and intentionality) of the theory (Purkey & Novak, 2015).

According to Purkey (1991), the ability to care about others and oneself is the core of invitational theory. Human beings are dependent on each other, and trust is essential for the connection to establish relationships that promote meaningful growth. Mutual respect and caring

for others in the learning process are exhibited in the 5 Ps or domains of invitational theory, "people, places, policies, programs, and processes" that make up the environments where individuals interact (p. 2). Optimism is an essential requirement of the theory because it provides the hope that change and improvement is possible. The last element, intentionality, enables an individual to create, maintain, and enhance an environment that helps people reach their full potential. These five elements facilitate the movement from theory to practice (Purkey & Novak, 2015).

Invitational theory also outlines the different levels of personal and professional functioning based on invitational assumptions. These levels include intentionally disinviting (the most negative and detrimental), unintentionally disinviting, unintentionally inviting (the "natural born" teacher), and intentionally inviting. The intentionally inviting is an individual who consistently exhibits the elements of the theory in all domains (Purkey & Novak, 2015, p. 6). Intentionality is critical for educators and nurses because the core function of both roles is to serve others. Invitational theory at its best is exhibited by the "plus factor," where an individual functions automatically at the highest level of inviting when interacting with others (Purkey & Novak, 2015, p. 6). An individual can achieve the goal of being intentionally inviting by working on the dimensions of being personally and professionally inviting to oneself and others.

Invitational theory has been used as a framework in healthcare and nursing. In one study, Pape (2007) examined the usefulness of the principles of the invitational theory in improving student learning in an elective perioperative course. Ten nursing students participated in the course and the invitational theory outcomes survey results demonstrated that the principles of invitational theory were effective (mean scores ranging from 9.1–9.9) in creating a positive learning environment. The students felt supported in reaching their highest level of achievement.

One student commented, "This was a wonderful class! I learned so much more than I ever would have imagined. Teaching was wonderful. I felt like a part of a team, not just another person in the crowd" (p. 365). Watts and Hodges (2021) conducted an interpretive phenomenological study (N = 12) to explore nursing students' perceptions of the learning environment and found the invitational theory to be a useful framework for use in nursing education to evaluate the learning environment. Inviting teaching practices and behaviors exhibited by the ANE can influence student perceptions and involvement in the learning process.

Related Literature

Overview of SEC in Education

The educator must be able to recognize and use emotions effectively to have a positive influence on students. The importance of SEC was underscored in global initiatives to prepare teachers for education in the 21st century (Reimers, 2020). A world that changes rapidly necessitates a holistic approach to education in all academic settings to adequately prepare a student to be a knowledgeable, caring, responsible, contributing member of society (Elias, 1997). This requires students to possess cognitive abilities and SEC (Reimers, 2020). Research conducted on social and emotional intelligence as separate concepts over several decades led to the concept of SEC, which first appeared in the literature in 1976 (Lozano-Peña et al., 2021).

Over 20 years later, Elias (1997) and members of the CASEL defined SEC as "the ability to understand, manage, and express the social and emotional aspects of one's life tasks such as learning, forming relationships, solving everyday problems, and adapting to the complex demands of growth and development" (p. 2). The CASEL members also focused on identifying the learning constructs of SEC and how those could be incorporated into the classroom. The CASEL team described the learning to achieve SEC as "the process through which people

acquire and effectively apply the knowledge, skills and attitudes (KSA) that are required to understand and manage emotions, establish and achieve positive goals, show empathy for others, establish and maintain positive relationships, and make responsible decisions" (Durlak, 2015, p. 6). SEC is operationalized through the recognition, understanding, and regulation of thoughts, beliefs, and emotions, demonstration of empathy for others, forming and maintaining positive relationships with others, and making constructive choices that are respectful of others (Collie, 2019).

An educator, regardless of setting, is responsible for providing a high-quality education. Aspelin (2019) reported that SEC was a determining factor in the quality of education. Valente et al. (2020) conducted a correlation study with a sample of 634 Portuguese schoolteachers and found that SEC improved teaching effectiveness and classroom management. Wu et al. (2019) found similar results in a correlation study conducted in China in a sample of "467 middle school teachers" (p 1). The researchers reported a positive correlation between EI and self-efficacy, with the use of the EI skills to improve teaching performance. Conroy et al. (2019) conducted a randomized control trial that included 186 early childhood teachers and reported a positive correlation between self-efficacy and effective teaching practices (p. 31). Khassawneh et al. (2022) reported teachers with high SEC formed positive relationships, provided more support, and modeled how to use SEC for students. Limited information has been found in the literature about the influence of SEC on teaching performance in higher education.

Importance of SEC in Higher Education

The SEC of an educator may be a key differentiator in teaching excellence. The SEC can also be a primary factor in the quality of education and helping a teacher thrive in the role (Collie & Perry, 2019; Lozano-Peña et al., 2022). An educator must have KSA, but these are not

sufficient for teaching effectiveness without self-efficacy. Khassawneh et al. (2022) proposed that SEC bridges the gap between the KSA and efficacy to increase educator effectiveness and improve student outcomes. Bar-On (2006) indicated that the most important SEC competencies and skills that contribute to job performance are an awareness and acceptance of personal strengths and weaknesses, ability to recognize the feelings and needs of others, effective management of emotions, a realistic perspective, and positivity. An educator with SEC also acknowledges three assumptions of invitational theory: all students are valuable, have unlimited potential, and are collaborative partners in the educational process (Purkey & Novak, 2015).

Teaching can be a stressful occupation. The impact of that stress can result in decreased job satisfaction, involvement, and concerns about an educator's overall physical and psychological well-being (Lozano-Peña et al., 2021). SEC has been shown to improve the ability to recognize, express, and positively manage the emotions associated with the demands of education and decrease burnout in college educators (Yin, 2023). In a meta-analysis of 13 empirical studies conducted on improving SEC in primary educators, Oliveira et al. (2021) reported that the burnout experienced by educators was correlated to a low sense of professional self-efficacy (p. 1787). The researchers also found that SEC education decreased burnout and positively impacted an educator's feeling of personal achievement. A positive association has been found between educator well-being, teaching effectiveness, and the quality of education (Hascher & Waber, 2021; Pozo-Rico et al., 2023; Puertas Molero et al., 2019). An educator who is proficient in self-awareness recognizes their own emotions, the impact the emotions have on thoughts and behaviors, and personal strengths and areas where improvements are needed (Sekreter, 2019). The use of SEC, self-efficacy, intentionality, and active participation promote better stress management capabilities and resilience that serve as protective mechanisms to

decrease the emotional burden of teaching and prevent burnout (Abiodullah et al., 2020,

Cardoso-Pulido et al., 2022, D'Amico et al., 2020, Lucas-Mangas et al., 2022, Puertas Molero et

al., 2019). Bar-On (2006) concluded based on findings from a study conducted in "North

America (n = 3571), that the most important SEC competencies and skills that facilitate overall

well-being are the ability to understand and accept personal emotions, establish goals that create

a pathway to achieving the fullest potential, validation of feelings, and putting things into

perspective" (p. 21).

Effective communication skills are essential in education. Juvova and Duda (2021)

reported that proficiency in communication is linked to all the components of SEC. The

researchers analyzed the themes from a qualitative study (N = 5) and proposed that

communication competence is present when harmony in verbal and nonverbal expression, the

creation of safe and welcoming learning environment, expressing empathy, active listening,

being cooperative, and giving students opportunities for self-expression (p. 29). In medical

education, Knoster et al. (2021) reported findings from a correlation study (N = 177) that

students identified clear, concise, and relevant communication to be effective teaching attributes.

Students should have a voice in the decisions that impact them. A core assumption of

invitational theory is education should be a collaborative, cooperative process (Purkey & Novak,

2015). One of the essential competencies for all educators is the creation of an environment that

facilitates active learning and student participation in the educational process. An educator who

can quickly perceive the emotions of students who are bored or not understanding the materials

is able to adjust teaching strategies and facilitate interactive learning (Wen, 2020). An educator

that has a high level of SEC knows the students and can deliver personalized learning based on

individual needs. Abiodullah et al. (2020) conducted a correlation study (N = 320) with

secondary school educators in Pakistan and found that SEC influences teacher involvement in the teaching and learning process (p. 127). The level of participation of the educator may play a major role in the type of learning atmosphere that is created and the emotional state of students.

The topics and opinions discussed in a classroom can uncover both positive and negative emotions for students as well as educators. The social awareness component of SEC provides an educator with an understanding and causes of student emotions. This knowledge allows an educator to create the optimal learning environment that encourages positive social interactions, motivation, and active participation by the student in the classroom (Sekreter, 2019). The self-awareness component of SEC also supports the self-concept theory that is foundational to invitational theory (Purkey & Novak, 2015). The behavior and reaction of students and educators is mediated by a personal view of oneself (Purkey, 1978).

The authentic ability and desire to care of oneself and others by exhibiting warmth, empathy, and a positive attitude is a core element of invitational theory (Purkey & Novak, 2015). Bar-On (2006) identified empathy and interpersonal relationships as driving factors associated with competence in the interpersonal domain of SEC. Meyers et al. (2019) proposed that cognitive, affective, and social empathy are core components of the teaching role as having a strong influence on positive student outcomes. Juvova and Duda (2021) found that empathy plays a key role in establishing a trusting relationship with students and creating a healthy learning environment. Aldrup et al. (2022) reported the level of teacher empathy was found to be correlated with emotional support for students in some situations like bullying. Employers have expressed concerns with nursing graduates being prepared with a diverse skill set including SEC when they enter the workforce (McLaughlin et al., 2022). An opportunity exists for higher education institutions to integrate SEC into teaching practices and the curricula to effectively

prepare students for entry-level competence (Kastberg et al., 2020).

SEC in Nursing

All nurses must be competent to provide safe patient care and these essential skills are developed initially in a nursing education program. Each decision made by a nurse can directly impact the quality of care and healthcare outcomes. As noted by Purkey (1991), the tenets of invitational theory support that nurses can either enhance or detract from the likelihood of optimal levels of health and wellness for the patients they serve based on their behaviors and interactions. The self-awareness domain of SEC allows nurses to connect emotions, thoughts, and actions effectively and facilitates creativity when decisions are made based on thoughts and instinct. Raghubir (2018) noted that emotions play a critical role in the clinical judgments made by nurses. When new nurses transition into practice, sound clinical judgment skills are necessary to provide safe patient care.

Clinical Judgment

According to the AACN (2021), clinical judgment (CJ) is the process nurses use to make sound decisions based on knowledge, critical thinking, and clinical reasoning. CJ, as noted by Connor et al. (2022), is not a new concept but has evolved over time and the decisions made by nurses with this process directly impact patient outcomes. With the importance for all nurses to be proficient in making safe CJs, the process for students must be developed in nursing education. Bussard (2020) proposed the development of CJ in nursing students is dependent on the ANE providing a balance between the cognitive, psychomotor, and affective domains of learning. The affective domain is a more challenging domain for educators to incorporate into the learning process. EI has been shown to be effective in improving the methods of teaching to increase student involvement in the affective domain of learning (Bussard, 2020). The use of

mindfulness activities, empathy development, and role modeling SEC are effective strategies to facilitate learning and evaluation of the affective domain (Whittaker et al., 2023). Mindfulness has been shown to improve SEC through the practice of being intentionally aware of emotions and feelings without judgment (Ramaci et al., 2020).

As noted by Wong et al. (2020), the quality of patient care is determined by a nurse's performance and clinical competence. All nurses must make competent clinical judgments to provide safe patient care (Dickison et al., 2019). In a correlation study (N = 200) guided by the Bar-On ESI model, Dehnavi et al. (2022) found a strong positive relationship between SEC and clinical competence. The researchers concluded this relationship resulted in a greater likelihood of the application of nursing knowledge, problem-solving, decision-making, and effective communication into practice. According to Tofighi et al. (2022), time management skills are also essential to the development of clinical competence and the researchers found a significant correlation between the social awareness domain of SEC and overall time management in a study of nurse leaders in Iran. The researchers also reported finding no significant correlations between the other domains of SEC and overall time management.

SEC to Enhance Nurse Well-Being

The ANE is preparing future nurses to practice in a challenging healthcare environment. The health and wellness of nurses is paramount to achieving the long-term goal of improving global health (NASEM, 2021). The foundation for well-being starts in nursing education with the ANE playing a key role. The nursing shortage and the global pandemic have significantly impacted the workforce. In 2022, over half of all nurses had considered leaving their position and the two most common reasons were the inability to deliver quality care due to insufficient staffing and the negative impact of work on their health and well-being (AACN, 2022). The

projected cost of replacing one nurse who leaves a hospital position could be over $80,000 (Slater et al., 2021). The systemic issues of the stress and anxiety associated with the occupation can result in patient safety issues (Ryu & Shim, 2021; Sun et al., 2021). In addition, the occupational stress can result in increased absences from work, incivility, burnout, and compassion fatigue (Fountouki & Theofanidis, 2022; Jiang et al., 2021; Saragih et al., 2022). According to Bar-On (2006), the most significant SEC competencies and skills to maintain physical and mental health are self-awareness, the ability to manage emotions, validation of feelings, cope with stress, "solve problems of a personal and interpersonal nature," and the motivation to accomplish personal goals and reach the highest potential (p. 19).

Several studies have found SEC to be a protective mechanism against occupational stress. Alsufyani et al. (2022) conducted a predictive correlation study in Saudi Arabi and found an inverse relationship between the SEC of nurses and perceived occupational stress; nurses with high SEC reported lower stress levels. Bittinger et al. (2020) also reported similar findings in a study of Certified Registered Nurse Anesthetists working in the United States; Certified Registered Nurse Anesthetists with high SEC were noted to have the ability to better manage occupational stress. Mazzella-Ebstein et al. (2021) used the Bar-On ESI model to explore the relationship of SEC and stress in oncology nurses with varying years of experience and discovered SEC in nurses improved over time and higher SEC correlated with decreased levels of stress resulting in improved work performance. The ability of nurses to be personally and professionally inviting to others helps form social networks and support systems to manage the stress and demands of the role (Purkey & Novak, 2015).

Collaboration and Teamwork

Nurses are key members of the interprofessional healthcare team. The ability to

collaborate effectively is essential to the delivery of quality care (Ylitörmänen et al., 2019). A

holistic approach to patient care is facilitated by teamwork in a setting where nurses with SEC

are able to recognize and respond appropriately to the complex needs of patients (Lee et al.,

2018). Interprofessional collaboration is enhanced by positive relationship building skills.

Christianson (2020) reported SEC is necessary to maintain healthy working relationships with

colleagues. Al-Hamdan et al. (2021) found a significant positive relationship between SEC and

nurse-nurse collaboration. Anderson (2020) proposed that the SEC of nurses working in the

operating room can directly impact team collaboration, performance, and ultimately patient

safety.

Professional communication is an essential skill for nurses regardless of practice setting.

The ability to establish a therapeutic relationship with patients is dependent on the nurse being an

effective communicator, and SEC influences the nurse's attitude about communication

(Giménez-Espert & Prado-Gascó, 2018). These findings were supported in a correlation study (N

= 253) conducted by Raeissi et al. (2019) with nurses employed in five Iranian hospitals. The

researchers reported a statistically significant correlation "($P = 0.00$, $r = 0.795$)" between SEC

and communication skills (p. 34). By deliberately focusing on the five Ps (people, places, policy,

programs, and processes) of the invitational theory, the ANE creates a learning space where

effective communication skills are the foundation to professional practice.

Conflict Management

Conflict is common within a healthcare environment because of insufficient resources,

difference in opinions, beliefs, or values, and change (Alan et al., 2022). Effective management

of conflict can result in innovation and creativity, but ineffective management of conflict can

lead to decreased performance and job satisfaction, communication issues, stress, and

compromise the quality of patient care (Patton, 2020). According to Purkey and Novak (2015), an environment that is intentionally disinviting is unhealthy and reflects the most negative level of human functioning.

Most of the research about invitational theory has been focused on individuals in nursing management roles and conflict management. In the complex healthcare environment today, all nurses need effective conflict management skills to ensure a safe and productive work environment (Moeta & Du Rand, 2019). The development of conflict resolution skills begins in nursing education. SEC is associated with all the different types of conflict management styles (Al-Hamdan et al., 2021). The research on conflict management styles has been ongoing for almost a century. The styles of managing conflict identified by Rahim (1983) include, "integrating, avoiding, dominating, obliging, or compromising", and have been used frequently in nursing research (p. 369). Integrating was classified as a high concern for self and others according to Rahim and Magner (1995), implying both parties collaborate to reach a solution. Rahim and Magner classified "avoiding" as having a low concern for self and others and involves avoiding the situation and relying on others to resolve it (p. 123). Avoiding is commonly referred to as "passing the buck" (Rahim & Magner, 1995, p. 123). Dominating involves a high concern for self but low concern for others and may involve a high degree of wanting to get one's own way because the situation is viewed as resulting in having a winner and loser (Rahim & Magner, 1995). Obliging is classified as a low concern for self and high concern for others and is reflected in a focus on the commonalities and an effort to appease the other person. Compromising integrates all the other components and includes a moderate concern for self and others. Compromising involves a give and take approach to reach a mutual agreement (Rahim & Magner, 1995).

Al-Hamdan et al. (2019) conducted a descriptive, correlational study (N = 248) of nurse managers employed in Jordanian hospitals (p. 560). The researchers reported that EI was positively correlated with:

> integrating (r = 0.42, p < 0.01), compromising (r = 0.29, p < 0.0), and obliquing (r = 0.15, p < 0.05), and EI was negatively correlated with dominating (r = −0.34, p < 0.0) and avoiding (r = −0.18, p < 0.01; p. 564)

conflict management styles. Krishnakumar et al. (2019) found in a study of undergraduate college students that a positive correlation existed between EI and the use of a compromising conflict management style. Kantek and Yesilbas (2020) reported that role differences between nurses and physicians could lead to conflict. Delak and Širok (2022) examined the conflict management styles between nurses and physicians in Slovenia and found nurses were more likely to use an avoiding style to manage conflict and physicians used a compromising conflict management style. Based on mixed findings from prior research in other countries, more research is needed on the conflict management styles and socio-cultural influences.

Relational Leadership in Nursing

The original research on SEC in nursing examined the importance of SEC for nursing leadership. The ANE is recognized as a leader within the healthcare setting (NLN, 2022a). The relational leadership styles have been found to be most effective in healthcare (Major, 2019). Transformational and compassionate are two closely interconnected relational leadership styles (Cummings et al., 2018). Relational leadership is founded in the core components of SEC (Frias et al., 2021). Relational leaders create healthy work environments where nurses are resilient, satisfied with their job, and deliver high quality patient care (Tian et al., 2020). L. Wang et al. (2018) reported transformational leadership and nurse SEC had a significant influence on a

nurse's intent to stay. The ANE uses relational leadership skills to create an inviting learning environment where students are successful.

The rapid changes in technology, fiscal accountability, and insufficient staff are just a few of the issues that make a nurse leadership role very stressful and challenging. Lambert (2021) surmised that SEC is essential for all nurse leaders to successfully achieve organizational goals, create a positive work environment, and promote nurse's physical and mental well-being. Mansel and Einion (2019) found in a phenomenology study of nurse leaders that most were not aware of the EI term but described the SEC concepts when talking about their role. The narratives collected during the study reflected that a higher level of SEC helped the leaders successfully balance organizational demands and the needs of employees.

The leaders within any organization help develop and support the culture and recent global events highlighted several opportunities for improvement (Webster & Sanders, 2022). Nurse leaders who embrace the five elements of invitational theory: care, trust, respect, optimism, and intentionality create an environment that help everyone impacted by their leadership to reach their fullest personal and professional potential (Purkey & Novak, 2015). The use of relational leaders can greatly impact the level of participation of nurses resulting in improved care outcomes, job satisfaction, and retention (Slåtten et al., 2022). The SEC of nurse leaders contributes to the creation of a healthy work environment also resulting in an increase in nurse retention (Majeed & Jamshed, 2021). As noted by Jeon and Lee (2021), the style of nursing leadership played a significant role in the recruitment and retention of nurses.

Unexpected events, like the recent pandemic, have caused unprecedented challenges in healthcare resulting in stress, burnout, and compassion fatigue in the nursing profession. Salminen-Tuomaala and Seppälä (2022) described a great need for compassionate leadership

during these challenging times to better support nurses and nursing students. Chang and Cho (2021) noted that the social support from nursing colleagues with higher SEC was found to decrease the emotional labor associated with the nursing profession. The findings are significant when considering efforts to increase recruitment and retention of nurses, reduce nursing student attrition rates, and decrease the nursing shortage.

SEC in Nursing Education

The ANE is responsible for preparing the next generation of nurses to be competent in providing safe care for a very diverse patient population with complex healthcare needs (NASEM, 2021). The people domain of invitational theory has one of the most significant impacts on student learning (Purkey, 1991). According to Ramsbotham et al. (2019), the relationship between the ANE and the students directly impacts active student learning and power dynamics in education. The ANE can be readily acknowledged by the student as being either inviting or disinviting (Watts & Hodges, 2021), whether intentional or unintentional.

Limited information has been found in the literature about how the competence, specifically SEC, of the ANE impacts student outcomes. Salminen et al. (2021) conducted a descriptive correlation study (N = 1796) with new nursing graduates from Finland, Germany, Iceland, Ireland, Lithuania, and Spain to explore the nursing and pedagogical competence of ANEs and the self-reported competence of the graduate nurse (p. 104769). The researchers reported that students who perceived they had a high level of competence also evaluated the ANE as being very competent "(r = 0.15, p < 0.0001)" (p. 104769). Kiekkas et al. (2019) discovered in a descriptive study (N = 285) of nursing students ready to graduate in Greece who self-reported competence levels were significantly associated with the perceived quality of nursing education (p. 278). Kuchinski-Donnelly and Krouse (2020) also reported students who

perceive themselves as competent are more engaged in the learning process.

Most of the research on SEC in nursing has been conducted exploring EI in nursing students. SEC produces many benefits with nursing students. The SEC of the ANE may influence the level of SEC in nursing students. Students who can recognize and manage emotions perform better clinically by providing a more holistic approach to care (Culha & Acaroglu, 2019; Kim & Shin, 2021; N. Singh et al., 2020). The adaptability domain of SEC is facilitated by problem-solving and flexibility (Bar-On, 2006). These skills assist nursing students to manage change more effectively (Alconero-Camarero et al., 2018; Kim and Shin, 2021). The ANE who effectively uses the domains of SEC, like adaptability, in teaching practice facilitates the student's abilities in these key areas. Empathy and interpersonal relationships, key factors in the interpersonal domain of SEC, help nursing students relate well with patients and families to establish therapeutic relationships (Foster & McCloughen, 2020; Hajibabaee et al., 2018). Nursing students with high SEC in the general mood domain are more optimistic and internally motivated. They manage stress more effectively resulting in less anxiety, depression, and overall better mental and physical well-being (Carvalho et al., 2018; Dugué & Dosseville., 2018; Foster et al., 2018). According to Bar-On (2006), the ability to manage emotions, validate one's feelings, and to solve problems of a personal and interpersonal nature are important to academic success. Academic performance is enhanced by a student who is optimistic and can set personal goals and be internally motivated to accomplish them. The effective use of SEC by the ANE to create an inviting learning environment is essential to a student's success.

Critical Thinking

SEC is positively correlated with critical thinking (CT) and CT is an essential skill for nurses to make good clinical decisions and provide safe patient care (Christianson, 2020). Some

of the original research on SEC in nursing education was conducted on CT. Brookfield (1991) surmised that emotions played a key role in CT and nurses must assess actions and behaviors, further evaluate, and question any assumptions when making decisions. Yao et al. (2018) reported findings to support one part of the neuroscience associated with SEC. The researchers found that a student with higher SEC had more gray matter in the temporal lobe, which facilitated better social and emotional processing and a positively correlated CT ability. The teaching strategies used by the ANE stimulate students to reach this deeper level of thinking and learning. Kaya et al. (2018) noted in a longitudinal study (N = 182) of undergraduate nursing students that CT increased over the course of a program of study. AkbariLakeh et al. (2018) conducted a descriptive correlation study (N = 50) with senior nursing students at a university in Iran to explore the relationship between CT and EI with academic success. The researchers found a significant relationship between CT and EI and academic success in the senior nursing students.

Academic Success of Student Nurses

The ANE must consider multiple factors that can influence the academic success of students. Purkey and Novak (2015) indicated academic success is enriched in a learning environment that ensures the people, places, processes, policies, and programs are intentionally inviting. The educational and personal development of students is enhanced by their involvement in academic and non-academic activities. The stress associated with a nursing program of study can lead to burnout and decreased involvement of students in the learning process, which can increase the risk of attrition (Shah et al., 2021). According to the NLN (2021), the attrition rate for nursing programs in the United States was around 20% in 2020. The high attrition rates impact the number of nurses available to enter the workforce (Veesart & Cannon, 2021).

McDermott et al. (2020) noted that academic distress is a leading cause of nursing student attrition, indicating the necessity to create an inclusive culture for learning. Benington et al. (2020) proposed that SEC may be a possible solution to decreasing attrition rate in nursing programs. The learning environment created by the ANE can be influenced by SEC and can directly impact the retention rates in nursing programs.

Academic success in nursing schools is greatly influenced by the degree in which a student is actively involved in the learning process. Chickering and Gamson (1987) noted in the principles that reflect good practice and excellence in education an association with high levels of student involvement. An ANE strives to establish and maintain a healthy learning environment that promotes student motivation and involvement. This ability is supported when the invitational theory elements, domains, levels, and dimensions of functioning work together to inspire students to reach their fullest potential (Purkey & Novak, 2015). According to Zhoc et al. (2020), the SEC of students had a significant influence on their involvement in the learning process and academic success. The social determinants of learning, academic workload, isolation from peers, and low SEC may increase the risk of burnout (Wei, Dorn, et al., 2021). The teaching practices of the ANE are significant factors in reducing burnout (Li et al., 2019; Wei, Henderson, et al., 2021). According to Amattayakong et al. (2020), the time required to complete academic assignments can create an imbalance between work and life, resulting in decreased physical activity and the overall well-being of nursing students. K. Wang et al. (2020) reported a positive correlation between physical activity and SEC, stress management, and coping in college students. M. Singh and Sachdev (2020) also found that moderate intensity exercise practiced daily for one month significantly improved SEC and general intelligence and decreased stress levels.

As indicated by Bar-On (2006), the SEC of an individual is positively correlated and can predict the nature of interpersonal interactions. Mamat and Ismail (2021) conducted a qualitative case study (N = 10) of university educators to explore the integration of EI and teaching practices. The researchers discovered that educators with SEC increased student interest by creating a mood in the classroom that encouraged students to ask questions and have open, honest communication about the emotional aspects of situations or learning. Online learning environments can create some additional challenges for educators to engage students. Gangwani and Alfryan (2020) reported that teaching based on student need was an effective method to improve the involvement of students in online educational delivery. DeGrande et al. (2020) recommended the use of a synchronous virtual classroom to improve student-faculty relationship building and increase student participation in online learning environments.

The academic preparation of nursing students should provide new graduates the competencies required for entry-level practice and the successful completion of the National Council Licensure Examination (NCLEX) for the registered nurse (RN) (Smith-Glasgow et al., 2019). The first-time pass rates for the NCLEX-RN are used by some Boards of Nursing and national accreditors as an outcome measure of educational quality (Spector et al., 2018). As noted by Smith-Glasgow et al. (2019), nursing programs often use standardized testing, like the Health Education Systems Incorporated exit exam, to predict NCLEX success. Rode and Brown (2018) conducted a descriptive, cohort study to explore the relationship between EI and NCLEX success. The researchers reported a significant correlation between EI and NCLEX with perceiving and understanding emotion components of EI to be significant predictors of NCLEX success.

Sharon and Grinberg (2018) found a positive correlation between EI and student success

in nursing courses where grades were used as the measure of success. Kim and Shin (2021), in a study conducted with nursing students in Korea, reported a "canonical correlation coefficient of 0.762 between SEC and academic achievement with critical-thinking, problem solving and cooperation making the most significant contribution to SEC" (p.1752). N. Singh et al. (2020) reported EI played a significant role in the clinical education of medical and dental students; however, the researchers did not find evidence to correlate EI to overall academic performance. Alconero-Camarero et al. (2018) linked higher levels of SEC to increased problem-solving ability, articulation of emotions, and improved academic success. Pienimaa et al. (2022) also reported a positive correlation between SEC and improved student success and clinical performance.

Clinical Competence of Nursing Students

Clinical competence in nursing students is critical to safe patient care. Dou et al. (2022) reported that clinical education is an opportunity for students to apply the KSAs to develop clinical expertise. Jantzen (2019) noted that securing quality clinical experiences for students to practice the skills is challenging in the current healthcare environment. EI and clinical ability were found to be correlated with the EI branches of "managing emotions" and "facilitating thought" having direct effects on clinical ability (Dou et al., 2022, p. 149). The management of emotions allows the student to remain positive, which is an important strength when students encounter the emotional labor of patient care. Cheshire et al. (2020) and Dou et al. found that nursing students were less likely to understand emotions. According to Dou et al. this may create some additional challenges for nursing students with the development of effective communication skills. Some studies have indicated empathy, SEC, and problem-solving can improve the communication skills of nursing resulting in a trusting nurse-patient relationship

(Delmas et al., 2018).

Research on the emotional labor, or the ability to effectively manage feeling, associated with clinical nursing education has increased over the past decade (Walsh et al., 2020). Clinical education is exciting for nursing students, but it can also be extremely stressful due to the interpersonal aspect of providing patient care. Lopez et al. (2018) reported that exposure to negative interpersonal encounters can leave nursing students feeling more stressed and struggling to cope. Foster and McCloughen (2020) conducted interviews with nursing and pharmacy students who had experienced interpersonal encounters with angry and aggressive patients or families during clinical education. The findings indicated students with higher SEC were more effective in adapting and shaping these challenging encounters. Patient safety could be jeopardized when students are not actively involved in the learning process. Tariq et al. (2022) reported that in the United States over 7000 people die each year from medication errors and the cost associated with medication errors exceeds forty billion dollars annually. Stolic et al. (2022) indicated a gap in nursing knowledge played a large part in medication errors. The general mood component of SEC can influence the infusion of humor and positivity into the teaching and learning process.

Hurley et al. (2020) conducted a qualitative study with nursing students who had received EI training and coaching prior to clinical placements. After a thematic analysis of the interviews with students, the researchers reported evidence of the benefits of the EI training and coaching in the themes of improved resilience, positive response especially during mental health clinical assignments, and increased empathy and compassion (Hurley et al., 2020). Ramadan et al. (2020) also found a significant improvement in clinical performance after nursing students had participated in EI training prior to clinical placements.

Culture and Diversity in Nursing Education

The culture can also significantly impact faculty diversity. The ANE must be proficient in using SEC to create an inclusive learning environment to prepare nursing students to practice in a complex diverse healthcare system (Charania & Patel, 2022). A national goal identified by NASEM (2021) is to increase diversity in the nursing profession to better reflect the demographics of society. Nursing faculty can support the use of SEC and promote a culture of diversity, equity, and inclusion through openness, self-awareness, self-reflection, and positive interactions (Wright et al., 2021). As noted by Purkey and Novak (2015) being professionally inviting with others is founded in treating people as individuals and ensuring processes, programs, and policies are inclusive, equitable, and fair.

Nursing faculty with high SEC will be instrumental in leading initiatives over the next decade to accomplish the goal of decreasing health disparities and improving global wellness (NASEM, 2021). Caring, alleviation of pain or suffering, and the promotion of optimal health outcomes will be dependent on the cultivation of SEC by ANEs and the application of theoretical knowledge to develop clinical proficiency in student nurses (Honkavuo, 2019). The ANE can use the principles of invitational theory to help students cultivate their personal SEC and develop a nursing practice of intentionality to support health and well-being of all individuals.

Empathy and SEC

Affective and cognitive empathy are important elements of SEC and Invitational theory. Affective empathy includes emotional responses to feelings and emotions of other individuals, whereas cognitive empathy refers to the ability to understand and know other people's perspectives, affections, and beliefs (Rohani et al., 2018). Empathy is an essential skill for nurses to understand situations from the patient's viewpoint, recognize emotions, and respond

appropriately (Deng et al., 2023). Empathy is not an inherent trait but can be developed through training (Patel et al., 2019). A positive correlation has been found between SEC and empathy in healthcare education (Lina et al., 2022; Shi & Du, 2020). Empathy and SEC also have a positive impact on a nursing students' ability to provide humanistic care (K. Wang et al., 2020). Humanistic care as indicated by Lina et al. (2022) is a nurses' ability to listen to patient needs, understand emotions, effectively communicate, and respect the meaning of life to establish a positive relationship. Hutchinson et al. (2018) conducted a qualitative study in undergraduate nursing students and noted a theme of higher SEC and increased self-awareness and empathy. Empathy is directly influenced by problem-solving; better problem-solving ability was correlated with higher levels of empathy (Deng et al., 2023). A concerning trend noted is a decrease in empathy in nursing (Yi et al., 2021). Dehnavi et al. (2022) also noted a decrease in empathy in nurses employed in special care units. This concerning trend that has been noted creates an opportunity for the ANE to use SEC to improve empathy in nursing students.

Some studies have suggested a difference in empathy, problem-solving, and SEC between men and women. Bar-On (2006) reported finding from a correlation study conducted in North America (N = 3831) that no significant difference in overall ESI scores were found when comparing women and men. However significant differences were noted in some domains and factors within ESI. Bar-On found women had stronger interpersonal skills, were more aware of emotions, demonstrated empathy, and possessed better social skills. The men had stronger intrapersonal skills, higher self-regard, self-reliance, better coping with stress and problem-solving, and were more optimistic. Deng et al. (2023) found no gender difference in empathy and problem-solving ability but did report a significant increase in the SEC for women in comparison to men. In a descriptive study of Turkish and Greek nursing students, Fountouki et al. (2020)

reported that female students had higher levels of empathy than the male students. Valente and Lourenço (2020) conducted a correlation study (N = 382) with schoolteachers in Portugal exploring the correlation between EI and conflict management. The researchers also examined gender as a variable and reported a significant positive correlation, "(r = 0.156; p < 0. 01; ECE: r = 0.095; p < 0. 05; MRE: r = 0.106; p < 0.01)", between EI and women (p. 26). Gilar-Corbi et al. (2020) investigated SEC in current and former master's degree nursing students and found female students had higher SEC than male students and performed better academically.

Bar-On (2006) reported that ESI improves as an individual gets older, with the highest ESI noted in people in their late 40s. Štiglic et al. (2018) conducted a descriptive study (N = 217) to explore the EI and gender differences in first year nursing (n = 113) and engineering (n = 104) students at a university in Slovenia. The researchers reported that older nursing students had higher ESI than younger students. Pérez-Fuentes et al. (2018) found in a correlation study (N = 2126) conducted with nurses working in Spain that women had higher levels of interpersonal and intrapersonal components of SEC and participation than men. The researchers found a negative correlation between age and the interpersonal component of SEC and the vigor and absorption dimensions of participation (p. 1915). Any differences in SEC related to age or gender is a potential variable that the ANE must take into consideration when choosing teaching strategies and supporting the development of SEC in nursing students.

Integration of SEC in Nursing Education

Employers have expressed concern because new graduates are not transitioning into practice with critical soft skills, like communication, problem-solving, critical thinking, interpersonal relations, ability to be innovative or creative, and SEC (Teng et al., 2019). Most higher education institutions have a mission and vision to support student success and as part of

that commitment they have a responsibility to incorporate SEC into the educational preparation of students (Kastberg et al., 2020). Despite the abundance of literature to support the many benefits of SEC for nursing students, integration of ongoing SEC development in the nursing curriculum has been random and inconsistent. Kastberg et al. (2020) recommended that for SEC to be effectively integrated into the curriculum, a student must have the motivation to improve SEC, opportunities to practice the skills, receive timely feedback, and ongoing reinforcement of the information. This finding supports the need for the use of IT in nursing education to create learning environments that help students succeed.

Goleman (2006) proposed that the SEC skill set could be taught and that SEC increased with age and life experiences. Budler et al. (2022) found a significant difference in the SEC in a comparison of the first and third year of an undergraduate nursing program. Cheshire et al. (2020) conducted a longitudinal study (N = 112) over the course of the program of study with baccalaureate nursing students at a public university in the United States. EI scores were collected during the students' first class in the first semester and again in the last class during the final semester. The researchers reported a statistically significant decrease in the total EI scores in a comparison of the beginning and end student EI scores (p. 103). The researchers concluded this decrease in EI scores was related to the stress and emotional labor experienced by nursing students near the end of their program. Kaya et al. (2018) conducted a longitudinal study (N = 182) exploring critical thinking abilities and EI scores in undergraduate nursing students over the course of their program of study. The researchers reported that SEC did not increase over time in students:

average scores of students in the emotional intelligence sub-dimensions at the beginning of the first class for students were as follows: awareness of the emotions: 30.30 ± 4.02;

regulating emotions: 25.75 ± 5.46; self-motivation: 28.13 ± 4.85; empathy:29.05 ± 4.15;

and social skills: 26.98 ± 4.56; the average scores of students for the emotional

intelligence sub-dimensions in the fourth academic year were as follows: awareness of

the emotions: 29.97 ± 3.42; regulating emotions: 25.79 ± 4.97; self-motivation:27.41 ±

4.29: empathy: 28.65 ± 4.06; social skills: 27.58 ± 4.70. (p. 28–29)

Bussard (2020) reported that by using SEC to target affective domain teaching practices,

the ANE can effectively increase SEC and clinical judgment in nursing students. Cox (2018)

recommended SEC be integrated throughout the curriculum to enhance the competencies of the

advanced practice registered nurse (APRN) to positively impact the complexities of healthcare.

The ANE is in a position to cultivate SEC in students throughout a nursing program and establish

the professional obligation to continue to develop proficiency throughout the nursing career (Dou

et al., 2022; Honkavuo, 2019). A qualitative study (N = 17) conducted by Mlinar Reljić et al.

(2019) with undergraduate nursing students in Slovenia determined that self-reflection activities

can help improve problem solving and help students reach a deeper level of self-awareness (p.

65). Meng and Qi (2018) provided educational intervention to facilitate SEC through self-

reflection activities and reported decreased stress and better communication skills in the

intervention group. In an experimental pretest-posttest study (control group n = 23 and

experimental group n = 20), Shahbazi et al. (2018) explored the use of problem-solving skill

training to improve EI in senior nursing students. The problem-solving skill intervention

included the use of small group discussions, brainstorming, and gaming teaching strategies. The

researchers reported significantly higher EI scores in the experimental group "(05.87 ± 9.82 and

109.44 ± 9.56 vs. 101.22 ± 10.93; P < 0.001)" two months after the intervention (p. 156).

Anderson (2020) reported the use of mindfulness activities to be effective in improving SEC and

resilience by keeping a nurse focused on the present time and managing negative emotions.

Continuing Professional Development to Improve SEC

Ongoing competence in nursing requires a commitment to life-long learning and professional development. Continuing professional development (CPD) is essential to maintain quality nursing education through competent practice of the ANE (Mikkonen et al., 2019). CPD is the active involvement of the ANE in a learning process to reflect on areas of proficiency, identify opportunities for improvement, and continually develop necessary competencies (Drude et al., 2019). As noted by Arian et al. (2018), the ANE that participates in CPD experiences greater self-efficacy and job satisfaction. Bar-On (2006) indicated SEC can be improved significantly with the use of short formal training methods. The use of CPD to improve SEC for the ANE will be the educational framework for the intervention used in the proposed study.

The importance of SEC in nursing and education is well demonstrated in the literature. As noted by Bar-On (2006) SEC is both "teachable and learnable" (p. 21). As recommended by Clark (2022), need exists for schools to add SEC into teaching and learning practices to cultivate a healthy academic environment and improve student success. Ireland (2022) conducted a qualitative study with nursing faculty from eight baccalaureate programs in the United States and reported that SEC was integrated into the curriculum sporadically using formal and informal strategies. Ireland also recommended that a systems approach of integrating SEC into the curriculum would be more effective in improving competence in the next generation of nurses.

A variety of different methods of education have been shown to be effective in improving SEC. In a randomized, placebo controlled experimental study, Sisman and Buzlu (2022) found a significant increase in the ability to recognize and express emotions for nursing students in the intervention group who had participated for 10 weeks in 2-hour emotion-focused training

sessions using the "psychodrama techniques of sociometry doubling, role-play and mirroring" (p. 199). Ramadan et al. (2020) reported a significant improvement in SEC following nursing students' attendance at an EI training program consisting of 12 sessions lasting 45 minutes. Shahbazi et al. (2018) conducted an experimental study over a 22-month time frame and found a significant increase in SEC scores immediately and 2 months after nursing students attended a six-stage social problem-solving educational program. Goudarzian et al. (2019) reported an increase in SEC after nursing students attended a 12-session self-care program that focused on the development of empathy, stress management, problem-solving and decision-making. Kikanloo et al. (2019) reported a significant correlation in stress and professional competence after nursing students attended a 6-week, 90-minute session EI educational program that included lecture, group discussion, and role play.

CPD is an important aspect of maintaining competence. Schonert-Reichl (2019) emphasized the necessity of incorporating SEC education into the academic preparation for all teachers. The achievement of competence is necessary but not sufficient to maintain the ongoing and evolving process of interpersonal effectiveness. Bumann and Younkin (2012) indicated that self-awareness, communication, and reflection facilitate the development of interpersonal effectiveness and the creation of an intentionally inviting learning environment. Reflection is not an innate skill, but with guidance and resources, is essential to help the ANE gain insight into their teaching practice (Bolg et al., 2020). Reflective activities help the ANE create a professional development plan (PDP). The PDP outlines goals that are specific, measurable, actionable, realistic, and timely (SMART; Embree, 2022). A need to further explore the role SEC plays in an educator learning to teach and how SEC is used in the teaching practice has been noted (Khassawneh et al., 2022). This study will help fill this gap in knowledge and provide

evidence to support the effectiveness of education on improving the SEC of ANEs.

Summary

The creation of an environment where the people, places, programs, policies, and processes are intentionally inviting facilitates the highest level of achievement. The components of the SEC detailed in the Bar-On ESI conceptual model are essential in using invitational theory as a framework to create this type of environment. SEC is essential in the nursing profession to deliver high quality patient care, facilitate interprofessional collaboration, achieve organizational goals, and promote nurses' physical and mental well-being. Additional benefits to nursing students include achieving academic success, improved clinical performance, and more effective management of stress and anxiety. The importance of SEC in nursing and nursing education is well supported by evidence. All competencies, including SEC, require the application of KSAs to maintain or improve proficiency. Less than five studies have been conducted on how the educator SEC affects student outcomes in higher education. Currently no studies on the SEC of the ANE and effective methods to improve SEC exist in the literature.

CHAPTER THREE: METHODS

Overview

The purpose of this experimental study was to determine the degree of effectiveness of an EI education webinar and reflection to guide the creation of a professional development plan (PDP) compared to written EI education on increasing the ANE SEC scores. Chapter Three provides a description of the study design, the research question used to guide the study, the hypothesis, participants and setting, instrumentation, procedures, and the data analysis plan.

Design

A pretest-posttest control-group research design was used for the study. The independent variables for the study were the pre-recorded EI education in webinar format and a written EI education activity (see Appendix E). The pre-recorded educational webinar and written activity, common forms of professional development education used to improve SEC, were developed by an expert certified in EI. Kotsou et al. (2019) indicated that content focused on the EI domains and delivered by an expert enhances the likelihood of improving the ANE SEC. Sherwood & Horton-Deutsch (2017) noted reflection was an essential skill in nursing to develop self-awareness and improve SEC.

The EI webinar provided a definition of SEC and a discussion of the importance of SEC in an individual's personal and professional life. The characteristics of the intrapersonal, interpersonal, adaptability, stress management, and general mood domains of SEC are outlined in the webinar. Each participant in group blue was guided in identifying opportunities to improve SEC and provided strategies on ways to increase the effective use of SEC in teaching practices. Black and Plowright (2010) surmised that reflective thinking improves learning and professional development. Through reflection on the EI education and the creation of an action plan, the ANE

can improve the use of SEC to create an inviting learning environment that supports superior student outcomes.

The participants in group red completed a written EI activity (see Appendix E), which was also developed by the certified EI expert. The information for the written activity was arranged starting with the definition and importance of SEC. Ways to improve and activities to practice the development of SEC were provided. Additional resources that can be used by the participants were also available. Opsahl et al. (2018) found formal EI education with the intentional plan for application of the knowledge effective in improving competence.

The dependent variable for the study was the SEC scores. The independent variable was group assignment to either complete a pre-recorded EI education in webinar format and a PDP or complete a written EI education activity. A pretest and posttest application of the EQ-i instrument was used to determine the effectiveness of the intervention. The SEC scores are a "self-report measure of emotionally and socially intelligent behavior" (Bar-On, 2006, p. 13). The Emotional Quotient Inventory (EQ-i) 2.0 was the data collection instrument used to assess the ANE SEC scores. This validated assessment tool provided results about an individual's strengths and opportunities for improvement on the five domains of self-perception, self-expression, interpersonal relationships, decision-making, and stress management (Mounce & Culhane, 2021).

Participant progression through each part of the study was tracked using a Qualtrics survey. Participants had the ability to leave the Qualtrics platform and return to the part of the study they were completing. Study participants, upon agreement to take part in the study and providing the informed consent (see Appendix C), were randomly assigned, using the Qualtrics randomizer, to either group blue or red. Each participant in both groups was automatically linked

to a demographic survey (see Appendix D) within Qualtrics after completing the informed consent. After the demographic survey was completed, the participants accessed a link to an external website for completion of a pretest EQ-i. After completion of the pretest EQ-i, a link to a pre-recorded 45-minute EI education webinar was provided to the participants in group blue. Each participant viewed the webinar individually and upon completion were linked to a reflection-guided professional development plan template. The template provided questions and prompts for each domain of SEC to assist the participant in identifying ways to improve the use of SEC in teaching practice. All participants had an opportunity to download their completed development plan. Group red participants were provided a link to the online written EI activity. All participants were given two weeks from the date of completion of the EQ-i pretest to complete the assigned educational activity. An additional two weeks were allocated for the participants in group blue to complete the reflection-guided professional development plan. At the end of four weeks, a link was sent by email to each participant in both groups to complete the posttest EQ-i. The EQ-i scores were used to determine if a statistically significant difference was made in the ANE SEC with the use of an EI webinar, reflection, and professional development plan compared to the completion of a written EI education activity.

The pretest-posttest control-group design supported the purpose of the study by examining the effectiveness of the EI webinar and reflection to guide the creation of a professional development plan. Group red, or the control group, allowed for a comparison to be made with group blue, the experimental group, and provided a control for rival hypotheses (Johnson & Christensen, 2019). As noted by Lozano-Peña et al. (2021) more empirical studies are needed on the SEC of educators.

Research Question

RQ1: To what extent is there a difference in the socio-emotional competence (SEC) scores for ANEs that complete EI education presented as a pre-recorded webinar and the creation of a reflection-guided professional development plan compared to ANEs that complete EI education in written format?

Hypothesis

The null hypothesis for this study was:

H$_0$1: There will be no statistical difference in the socio-emotional competence (SEC) scores for ANEs that complete EI education presented as a pre-recorded webinar and the creation of a reflection-guided professional development plan compared to ANEs that complete EI education in written format.

Participants and Setting

The participants for the study were drawn from a convenience sample of ANEs teaching in nursing programs in three states located in the southern region of the United States. The states have nursing programs that offer associate, baccalaureate, masters, and doctoral nursing education in either campus-based, online, or hybrid delivery models. The inclusion criteria for the study were that participants should have the ability to read and understand English and be an ANE. After Institutional Review Board (IRB) approval (see Appendix A), sampling began with sending invitation emails to all ANEs teaching in nursing programs within the three states (see Appendix F) to participate in the study. Reminder email invitations were sent at two- and four-week intervals following the initial invitation.

For this study, the number of participants sampled was 58, which did not meet the required minimum sample needed for a medium effect size. According to Creswell and

Guetterman (2019), a sample of 65 in each group was needed to have an alpha of .05, power of

.80, and a medium effect of .5" (p. 614). A power of .80 was needed to reject the hypothesis

when it is false and an effect size of .5 is used most often in educational research (p. 614).

The sample consisted of eight male and 50 female academic nurse educators teaching in

three states located in the southern region of the United States. The demographic characteristics

of the sample are presented in Table 1. The sample was primarily female (n = 50, 86.2%),

Caucasian (n = 48, 82.8%), had over 15 years of experience (n = 33, 56.9%), and over half (n =

30, 51.8%) taught in either a BSN or MSN nursing program. The two groups (red and blue) in

the study had 29 participants that were randomly assigned to each group. There were 24 female

and five male participants in group blue and 26 female and 3 male participants in the red group.

See Table 1 for the demographics by group.

Instrumentation

A demographic survey (see Appendix D) was used to collect the gender, ethnicity, years

of experience teaching in higher education, and primary nursing program where the ANE taught.

The demographic information revealed the sample for the study was representative of the target

population regarding gender and ethnicity. Most academic nurse educators teaching in the United

States are white females (NLN, 2022b).

Multi-Health Systems Incorporated (MHS) holds the copyright to the Bar-On EQ-i 2.0

and the administration of the instrument must be conducted through the authorized talent

assessment portal (TAP) provided by MHS. Permission was granted by MHS, for the study

primary investigator, to administer the EQ-i through the TAP and obtain the pretest and posttest

scores. The pretests and posttests EQ-i were measured with the EQ-i 2.0 originally developed by

Bar-On in 1997. The EQ-i was an instrument developed to provide an estimate of SEC by

measuring socially and emotionally intelligent behaviors and to operationalize the Bar-On ESI

conceptual model (Bar-On, 2006). The EQ-i is a self-report instrument that contains 133 items.

The tool was administered on a secure online website. According to Bar-On (2006) each item on

the EQ-i is a short sentence and employs a five-point response system from 1 (very seldom or

not true of me) to 5 (very often true of me or true of me).

Table 1

Demographics

Variable/Level	Total Frequency (%)	Frequency (%) Red	Frequency (%) Blue
Gender			
Female	50 (86.2%)	26 (44.8%)	24 (41.3%)
Male	8 (13.8%)	3 (5.1%)	5 (8.6%)
Ethnicity			
African American	6 (10.3%)	4 (6.8%)	2 (3.4%)
Asian	2 (3.4%)	1 (1.7%)	1 (1.7%)
Caucasian	48 (82.8%)	23 (39.6%)	25 (43.1%)
Hispanic/Latino	1 (1.7%)	1 (1.7%)	
Other	1 (1.7%)		1 (1.7%)
Years of Teaching Experience			
< 1 year	1 (1.7%)		1 (1.7%)
1-5	4 (6.9%)	2 (3.4%)	2 (3.4%)
6-10	6 (10.3%)	2 (3.4%)	4 (6.8%)
11-15	14 (24.1%)	7 (12%)	7 (12%)
16-20	10 (17.2%)	6 (10.3%)	4 (6.8%)
21-25	9 (15.5%)	5 (8.6%)	4 (6.8%)
> 25 years	14 (24.1%)	8 (13.7%)	6 (10.3%)
Program			
ADN	14 (24.1%)	3 (5.1%)	11 (18.9%)
BSN	15 (25.9%)	5 (8.6%)	10 (17.2%)
RN	6 (10.3%)	4 (6.8%)	2 (3.4%)
MSN	15 (25.9%)	9 (15.5%)	6 (10.3%)
Doctoral	4 (6.9%)	4 (6.9%)	
Other	4 (6.9%)	4 (6.9%)	

The computer-generated results of the pretest and posttest EQ-i instrument raw scores

were converted into standard scores based on a mean of one hundred A total SEC score and a

breakdown of effectiveness in five composite scales: self-perception, self-expression, interpersonal, decision making and stress management that are made up of the fifteen subscales are provided. Average to above average scores suggest the individual is effective in using SEC (Bar-On, 2006). To minimize the risk of bias with the use of self-report measures, Bar-On (2006) reported the EQ-i has a correction factor integrated to automatically adjust the scale scores based on scores obtained from the "validity indices of positive and negative impression" (p. 15). Bar-On (1997b) reported the overall internal consistency coefficient for the EQ-i was 0.97 (p. 17). The EQ-i has been used in numerous studies (Dehnavi et al., 2022; Erkayiran & Demirkiran, 2018; Gilar-Corbi et al., 2018). Erkayiran and Demirkiran (2018) reported in a quasi-experimental study of improving SEC in nursing students, a "Cronbach alpha for the EQ-i of 0.94" (p. 1903). Dehnavi et al. (2022) also reported in a correlational study of EI and clinical competence in nurses, a Cronbach alpha for the EQ-i of 0.85 (p. 3). According to Mackridge and Rowe (2018), a Cronbach alpha of 0.70 or greater would be acceptable to indicate internal consistency on the tool.

Procedures

The study sites were three states located in the southern region of the United States. The states have nursing programs that offer associate, baccalaureate, masters, and doctoral nursing education. The following procedures guided the study:

1. A list of registered nurses was obtained from the board of nursing or public accessible information website in each of the three states for the study.

2. Permission to use each list to identify potential participants for the study was provided on each board of nursing or public access website.

3. Each list provided in a spreadsheet format was filtered to identify the registered

nurses working in an academic nurse educator role in each state.

4. The email addresses of the academic nurse educators were extracted from the spreadsheet to send an initial email invitation (see Appendix F) to the ANEs teaching in nursing programs within each state to recruit participants. A follow-up email invitation reminder was sent to each participant at two- and four-week intervals.

5. Participants expressed interest in the study by clicking a link within the email that took them to a Qualtrics survey which facilitated seamless progression through each part of the study.

6. The first page of the survey was the informed consent and participants were instructed to type their name and the date at the bottom of the electronic document to consent to participate in the study.

7. After consenting to participate, the Qualtrics randomizer assigned each participant to either group red or blue.

8. Each participant in both groups was then automatically linked within the Qualtrics survey to the demographic survey.

9. An instruction page (see Appendix G) outlining each part of the study was provided following completion of the demographic information.

10. The next page of the survey provided information about socio-emotional intelligence and a link was provided to the external website where each participant completed an online pretest EQ-i

11. Each participant in group blue, after completion of the EQ-i pretest, returned to the Qualtrics survey, and accessed a link to the pre-recorded EI webinar and viewed by each individually. Each participant in group blue had two weeks after completion of

the EQ-i pretest to complete the pre-recorded webinar.

12. Upon completion of the webinar, a link was provided to the guided reflection professional development plan template. The participants in group blue had two weeks after completion of the webinar to submit the top three goals from the professional development plan in the Qualtrics survey.

13. Each participant in group red, after completion of the pretest EQ-i, returned to the Qualtrics survey to access a link to the online EI written education activity. Each participant in group red had two weeks after completion of the EQ-i pretest to complete the written education activity.

14. An additional two weeks following completion of the EI education was built into the study to allow the participants in group blue to develop the reflection-guided professional development plan and submit the top three goals.

15. Four weeks after completion of the pretest EQ-i, study participants in both groups received a link to complete the posttest EQ-i.

16. A codebook (see Appendix H) was used to create an Excel spreadsheet and import the data into the Statistical Package for the Social Sciences (SPSS) for analysis.

17. The researcher inspected the data and any missing data were removed.

Data Analysis

The computer-generated results of the pretest and posttest EQ-i instrument raw scores were converted into standard scores based on a mean of one hundred. A total SEC score and a breakdown of effectiveness in five composite scales: self-perception, self-expression, interpersonal, decision making, and stress management that are made up of the fifteen subscales were provided. All participant identifiers were redacted from the pretest and posttest results prior

to the creation of data using the codebook that was created for each variable or question (see Appendix F). The data was entered into the IBM Statistical Package for the Social Sciences (SPSS) version 29 for data analysis.

The data was visually inspected for scores that fall outside the acceptable range and any missing data. A box and whisker plot was created to also check for outliers. There were no outliers noted. Descriptive data analysis was conducted to summarize the data in a meaningful way so patterns that emerge from the data can be identified (Laerd Statistics, 2018). Analysis of covariance (ANCOVA) was used to compare the independent groups (red and blue) on the post-intervention total EI and subscales scores. The ANCOVA is an appropriate test to determine whether there is a statistically signification difference between the means of two independent groups (Laerd Statistics, 2018).

The assumptions for the ANCOVA were tested. The first four assumptions included (a) continuous dependent variable, (b) the independent variable is categorical with two or more independent groups, (c) a continuous covariate variable, and (d) independence of observations were met by the study design (Laerd Statistics, 2018). The assumption of normality was assessed using Shapiro-Wilk tests, homogeneity of variance was assessed using Levene's Test of Equality of Error Variances, and homogeneity of regression slopes using an interaction term of group pretest observation for each model. The assumptions were met and the ANCOVA analysis was conducted. Marginal means (M) with 95% confidence intervals (95% CI) were reported and interpreted for each group. Statistical significance was established at a two-side alpha value of 0.05.

Summary

An experimental study design was conducted to determine the effectiveness of EI

education presented as a pre-recorded webinar and the creation of a reflection-guided

professional development plan compared to completion of EI education in written format on

improving SEC in ANE. A demographic survey and the EQ-i instrument were used to collect

data for the study. Descriptive data analysis provided the characteristics of the sample. The

ANCOVA was used to compare the independent groups (red and blue) on the post-intervention

total EI and subscales scores, when adjusting for baseline observations.

CHAPTER FOUR: FINDINGS

Overview

The purpose of this experimental study was to determine the degree of effectiveness of a prerecorded emotional intelligence (EI) education webinar and the creation of a reflection-guided professional development plan (PDP) on improving socio-emotional competence (SEC) of the academic nurse educator (ANE). The independent variables for the study were the pre-recorded EI education in webinar format with PDP and the written EI education activity. The dependent variable for the study was the EQ-i scores. A one-way analysis of covariance (ANCOVA) was conducted to test the null hypothesis. Chapter Four provides the research question, null hypothesis, data screening, descriptive statistics, assumption testing, and the findings from the study.

Research Question

RQ1: To what extent, is there a difference in the socio-emotional competence (SEC) scores for ANEs that complete EI education presented as a pre-recorded webinar and the creation of a reflection-guided professional development plan compared to ANEs that complete EI education in written format?

Null Hypothesis

H₀1: There will be no statistical difference in the socio-emotional competence (SEC) scores for ANEs that complete EI education presented as a pre-recorded webinar and the creation of a reflection-guided professional development plan compared to ANEs that complete EI education in written format.

Descriptive Statistics

A convenience sample of ANEs were recruited from three states located in the southern

portion of the United States. Email invitations were sent to 4595 academic nurse educators teaching in the three states. Fifty-eight ANEs consented to participate and completed the study. Data collection occurred between November 2023 and February 2024. The demographic characteristics of the sample are presented in Table 1. The sample was primarily female (n = 50, 86.2%), Caucasian (n = 48, 82.8%), those who had over 15 years of experience (n = 33, 56.9%), and over half (n = 30, 51.8%) taught in either a BSN or MSN nursing program. The two groups (red and blue) in the study had 29 participants that were randomly assigned to each group. Group blue had 24 female and 5 male participants and group red had 26 female and 3 male participants. See Table 1 for the demographics by group.

Bar-On's (1997b) interpretive guidelines, presented in Table 2 were used to provide some context for the level of competence for the total EQ-i 2.0 scores of the academic nurse educators. There are seven rankings, beginning with markedly low (under 70), very low (70-79), low (80-89), average (90-109), high (110-119), very high (120-129), and markedly high (130+). The total EQ-i 2.0 scores determine the rankings, and the interpretive guideline statements provide context for the meaning behind the rankings.

Results

Descriptive statistics were used to summarize the data and characteristics of the research participants. A one-way ANCOVA was used to examine the difference that EI education delivered in a prerecorded webinar and the development of a PDP, or an online activity made on the posttest SEC scores for ANEs. The inferential analysis also tested the null hypothesis.

Assumption Tests

A one-way ANCOVA was run to determine the effect of EI education in prerecorded webinar or online activity format on post-intervention SEC scores after controlling for pre-

intervention SEC scores. The first four assumptions for the ANCOVA included: (a) continuous dependent variable, (b) the independent variable is categorical with two or more independent groups, (c) a continuous covariate variable, and (d) independence of observations were met by the study design (Laerd Statistics, 2018). There was a linear relationship between pre and post intervention SEC scores for each type of educational intervention, as assessed by visual inspection of a scatterplot. There was homogeneity of regression slopes as the interaction term was not statistically significant for total EI scores and the five domains see Table 3. Standardized residuals for the two interventions and for the overall model were normally distributed, as assessed by Shapiro-Wilk test. There was homoscedasticity and homogeneity of variances, as assessed by visual inspection of a scatterplot and Levene's test of homogeneity of variance for total EI scores and each of the five domains (see Table 3). Statistical assumptions were tested and met for total EI scores and each of the five domains before proceeding with interpretation.

Table 2

Bar-On's (1997b) Interpretive Guidelines for EQ-i Total Scores

Total Score	Ranking Interpretive	Guidelines
130+	Markedly High	A typically well-developed emotional capacity
120-129	Very High	Extremely well-developed emotional capacity
110-119	High	Well-developed emotional capacity
90-109	Average	Adequate emotional capacity
80-89	Low	Underdeveloped emotional capacity, requiring improvement
70-79	Very Low	Extremely underdeveloped emotional capacity
under 70	Markedly Low	A typically impaired emotional capacity, requiring improvement

Table 3

Assumption Tests Results

Outcome	Shapiro- Wilk p-value	Levene's test p-value	Homogeneity of Regression Slopes p-value
Emotional Intelligence	0.21	0.57	0.14
Self-Perception	0.33	0.78	0.58
Self-Expression	0.27	0.40	0.07
Interpersonal	0.13	0.69	0.14
Decision-Making	0.15	0.91	0.43
Stress Management	0.20	0.14	0.09

Hypothesis $H_0 1$

The null hypothesis for the study is: there will be no statistical difference in the socio-emotional competence (SEC) scores for ANEs that complete EI education presented as a pre-recorded webinar and the creation of a reflection-guided professional development plan compared to ANEs that complete EI education in written format.

There was no statistically significant difference found in the total SEC scores of academic nurse educators, $F(1,55) = 0.09$, p = 0.78. There were also no significant differences noted in the five domains of SEC (self-perception scores, $F(1,55) = 0.002$, p = 0.97, self-expression, $F(1,55) = 0.05$, p = 0.82, interpersonal, $F(1,55) = 0.001$, p = 0.99, decision making, $F(1,55) = 0.001$, p = 0.98, or stress management, $F(1,55) = 0.04$, p = 0.84). The marginal means with 95% confidence interval (CI) for each analysis are presented in Table 4. The medium effect size as noted by the partial eta square (n2 part = .539) indicates the findings have some practical significance. Consequently, the research failed to reject the null hypothesis. Therefore, a post hoc analysis, using a Bonferroni adjustment, was not done to determine differences between the two groups.

Table 4

ANCOVA Results

Outcome	Group Red (*M*, 95% CI)	Group Blue (*M*, 95% CI)	*F-value*	*p-*value
Emotional Intelligence	103.65 (100.37 – 106.94)	102.98 (99.58 – 106.38)	(1,55) = 0.09	0.78
Self-Perception	105.51 (102.30 – 108.73)	105.41 (102.09 – 108.74)	(1,55) = 0.002	0.97
Self-Expression	96.79 (93.52 – 100.07)	97.33 (93.93 – 100.73)	(1,55) = 0.05	0.82
Interpersonal	108.93 (106.01 – 111.85)	108.94 (105.91 – 111.96)	(1,55) = 0.001	0.99
Decision-Making	104.05 (100.45 – 107.64)	103.99 (100.26 – 107.71)	(1,55) = 0.001	0.98
Stress Management	100.35 (96.98 – 103.72)	99.84 (96.35 – 103.33)	(1,55) = 0.04	0.84

Note: *M* – marginal mean, 95% CI – 95% confidence interval

The majority of the ANEs in both groups had an average level of EI based on the post-intervention EQ-i total scores (see Table 5). This reflects an adequate emotional capacity. Group red had the greatest number of ANEs with a well-developed emotional capacity and also two participants with an extremely underdeveloped emotional capacity.

Summary

This experimental study had a total of 58 participants, 29 in each group. The descriptive statistics and demographic data revealed the majority of the ANEs were white females. The analysis of the ANCOVA found no statistical difference in the SEC scores for ANEs that complete EI education presented as a pre-recorded webinar and the creation of a reflection-guided professional development plan compared to ANEs that complete EI education in written format. There was no statistical difference found in each of the five domains (self-perception, self-expression, interpersonal, decision-making, and stress management). Therefore, the evidence supports failure to reject null hypothesis H_01 and no post hoc analysis was conducted.

The posttest SEC scores indicated that the ANE EQ-i scores increased in both groups. The highest level of SEC was noted in the interpersonal domain and the lowest level of SEC was noted in the self-expression domain.

Table 5

Interpretation of Total EQ-i scores

Emotional Intelligence	Group Red (n = 29)	Group Blue (n = 29)
Markedly High (130+)	0	0
Very High (120-129)	3 (8%)	3 (8%)
High (110-119)	9 (31.1%)	6 (32.2%)
Average (90-109)	14 (48.3%)	16 (55.2%)
Low (80-89)	3 (8%)	2 (4.6%)
Very Low (70-79)	2 (4.6%)	0
Markedly Low (< 70)	0	0

CHAPTER FIVE: CONCLUSIONS

Overview

This chapter provides a discussion of the findings from the study including conclusions drawn from the findings. The research results are provided in relation to the study's theoretical framework and a review of published literature. The implications from the findings to guide nursing education will be explored. Any limitations of the study will be discussed, and recommendations for future research will be offered.

Discussion

The purpose of this experimental study was to determine the degree of effectiveness of a prerecorded emotional intelligence (EI) education webinar and the creation of a reflection-guided professional development plan (PDP) on improving socio-emotional competence (SEC) of the academic nurse educator (ANE). A pretest-posttest control group design was used for the study. There was a total of 58 participants in the study and the majority were white female ANEs. Data collection occurred over a 3-month period. The findings from the study revealed that the SEC scores increased between pretest and posttest in both groups, but no statistically significant difference was found after conducting a one-way ANCOVA analysis.

Research Question and Null Hypothesis H01

The research question that guided the study was to determine to what extent, is there a difference in the SEC scores for ANEs that complete EI education presented as a pre-recorded webinar and the creation of a reflection-guided professional development plan, compared to ANEs that complete EI education in written format? In both groups, the total SEC scores for academic nurse educators improved from pretest following an educational intervention. These findings support that SEC can be improved with education as Bar-On (1997a) had originally

proposed. However, a statistical difference was not found between the use of the recorded webinar and development of professional development plan and the online EI activity in improving the SEC scores.

There is limited empirical evidence found in the literature on the SEC of ANEs. In a randomized control study, Mao et al. (2021) found a statistically significant increase in registered nurses EI scores following one EI education over the course of one year. Kozlowski et al. (2018) also found a significant increase in staff nurse EI scores at four weeks after a 5-hour class on EI. Gilar-Corbi et al. (2018) reported effectively improving the EI competence in college students through several different methodologies: online, in the classroom, and coaching.

The highest level of SEC competence was noted in the interpersonal domain. Foster and McCloughen (2020) noted similar results in nursing students and reported that this competence facilitates therapeutic relationship building. The invitational theory served as the framework for this study. According to Purkey (1991), the faculty-student relationship is founded in trust and intentionality creates an inviting learning environment that helps students reach their highest level of potential.

Implications

The SEC of the ANE can play an important role in the creation of an inviting learning environment that supports the success of nursing students. The study findings validated that the SEC of the ANE can be improved with education. It was surprising that statistical significance was not found in the use of the prerecorded webinar and creation of the PDP to improve SEC when compared to self-directed written format. Reflection is an important practice for the ANE to gain insight into ways that new knowledge can be applied in teaching practice. The practice of reflection is not innate, and this researcher anticipated that the use of pre-designed template with

reflective questions for the PDP development would have increased the EQ-i post scores and overall competence.

Empirical Implications

A balance of SEC is important to the overall success and well-being of the ANE. Additional practical implications from the study suggest that the ANE could develop certain CI domains with higher levels of competence to temper related domains. The EI domains with lower levels of competence could be bolstered by other related domains. The domains of self-expression and interpersonal are related and the competencies from each offer serve to balance the other domain.

The ANE is accountable for high-quality nursing education that equips students with the knowledge, skills, and attitudes to meet the core competencies for professional nursing practice outlined in the AACN Essentials. The study findings suggest that SEC can be improved with education. SEC positively impacts the preparation of nursing students to achieve these competencies to make sound clinical decisions and provide safe patient care. The effective use of SEC as a foundational framework in nursing education creates an inviting learning environment where students excel.

Theoretical Implications

The theoretical implications from the findings support previous empirical studies that found the total EI and the subdomains can be improved with education. Also, like other studies the most effective method of education to improve SEC was not identified. These findings suggest that ANEs may have different learning styles and preferences. This offers an opportunity for future expansion of the Bar-On conceptual model and Purkey's invitational theory to include practical application of the principles and competencies in teaching practice.

Policy Implications

The policy implications from the study indicate a need for the education leaders and policymakers in nursing to create educational programs to improve SEC competence in the ANE. These initiatives will need to include the incorporation of SEC into educational programs that prepare ANEs for the role and ongoing professional development opportunities. The AACN Essentials includes EI as a core competency for professional nurses. Policymakers and national organizations, like the NLN, should also include SEC as a nurse educator competency.

Practical Applications

The SEC of the ANEs post intervention reflected adequate overall EI. The interpersonal domain of SEC was the highest score pretest and post intervention. Self-expression was the lowest scoring domain on the pretest EQ-i and post intervention. This reflects an opportunity in the ANE to improve openly and honestly expressing personal thoughts and feelings, assertiveness, and independence.

The characteristics of an ANE who has high interpersonal competence is approachable, displays social responsibility, maintains high-caliber relationships, can predict how their emotions affect others, and they are sensitive to the needs of others. It follows that high interpersonal competence could impact the student nurses that the ANE encounters. The two significant benefits associated with a high level of interpersonal competence are student success and retention of ANEs who are happy and healthy. The SEC level influences the ability of an educator to bridge the gap between theory and practice. A higher score reflects a higher level of the ANE's interpersonal competence. The interpersonal competence allows the ANE to form healthy relationships with students and inclusive learning environments that improve student success. This competence also facilitates relationship building with other nursing colleagues

facilitating mentorship and support for the academic team resulting in high-quality educational programs.

A focus today is on the current shortage of ANEs and the impact this has on the overall nursing shortage. The findings from this study support that SEC can be improved through shorter educational programs. An increase in SEC improves stress management capabilities and resilience. This can effectively help the ANE maintain their emotional and mental well-being leading to career satisfaction and longevity.

Limitations

The four main limitations in this study are limited geographical region, small sample size, self-reported data, and the time required for participants to complete the study. This study was limited to three states in the southern portion of the United States. The limited geographical region used in the study and small sample size limits the ability to generalize the findings to the larger population. The study included self-reported data by the ANE about SEC. Self-reported responses on the EQ-i 2.0 could have been exaggerated or an answer selected that the ANE felt would be socially acceptable. The last limitation was the difficulty encountered in recruiting participants. The time commitment for the study limited the number of participants. This may have been due to the intervention requirement that two hours was required to complete the pretest, education, and then return for the posttest, which spanned a four-week period.

Recommendations for Future Research

Additional similar empirical studies are needed on the SEC of the ANE. There are several opportunities to further build upon this study. A replication of the study with some modifications to reduce the time commitment and include continuing education credits for the ANE could increase the number of participants. A study is also needed to explore the correlation between the

SEC of the ANE and student outcomes. This could provide essential information on the most effective ways to support student success. Future studies should focus on the continued evolvement and maintenance of SEC by the ANE over a longer period. A longitudinal study with EQ-i 2.0 measurements at different points over the course of one year would add to the current body of knowledge.

Summary

The findings from this experimental study contribute to the current body of knowledge about SEC in the ANE. Like other core nursing competencies, SEC can be improved with education. This study underscores the importance of SEC for the ANE in nursing education. An improvement in the SEC of an ANE directly influences positive academic outcomes and the overall well-being of the nursing student. The recruitment and retention of ANEs with SEC can improve the quality and effectiveness of nursing programs. Nursing program administrators that invest in the ongoing professional development of SEC in the ANE are creating a culture where students can excel and achieve their highest level of potential.

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APPENDICES

Appendix A

Institutional Review Board Approval

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

November 27, 2023

Helen Freeman
Theresa Pape

Re: IRB Exemption - IRB-FY23-24-353 Improving the Socio-Emotional Competence of Academic Nurse Educators: An Experimental Study

Dear Helen Freeman, Theresa Pape,

The Liberty University Institutional Review Board (IRB) has reviewed your application in accordance with the Office for Human Research Protections (OHRP) and Food and Drug Administration (FDA) regulations and finds your study to be exempt from further IRB review. This means you may begin your research with the data safeguarding methods mentioned in your approved application, and no further IRB oversight is required.

Your study falls under the following exemption category, which identifies specific situations in which human participants research is exempt from the policy set forth in 45 CFR 46:104(d):

Category 2.(iii). Research that only includes interactions involving educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures, or observation of public behavior (including visual or auditory recording) if at least one of the following criteria is met:
The information obtained is recorded by the investigator in such a manner that the identity of the human subjects can readily be ascertained, directly or through identifiers linked to the subjects, and an IRB conducts a limited IRB review to make the determination required by §46.111(a)(7).

For a PDF of your exemption letter, click on your study number in the My Studies card on your Cayuse dashboard. Next, click the Submissions bar beside the Study Details bar on the Study details page. Finally, click Initial under Submission Type and choose the Letters tab toward the bottom of the Submission Details page. Your information sheet and final versions of your study documents can also be found on the same page under the Attachments tab.

Please note that this exemption only applies to your current research application, and any modifications to your protocol must be reported to the Liberty University IRB for verification of continued exemption status. You may report these changes by completing a modification submission through your Cayuse IRB account.

If you have any questions about this exemption or need assistance in determining whether possible modifications to your protocol would change your exemption status, please email us at irb@liberty.edu.

Sincerely,
G. Michele Baker, PhD, CIP
Administrative Chair
Research Ethics Office

LIBERTY UNIVERSITY.
INSTITUTIONAL REVIEW BOARD

January 24, 2024

Helen Freeman
Theresa Pape

Re: Modification - IRB-FY23-24-353 Improving the Socio-Emotional Competence of Academic Nurse Educators: An Experimental Study

Dear Helen Freeman, Theresa Pape,

The Liberty University Institutional Review Board (IRB) has rendered the decision below for IRB-FY23-24-353 Improving the Socio-Emotional Competence of Academic Nurse Educators: An Experimental Study.

Decision: Exempt - Limited IRB

Your request to recruit participants from boards of nursing in Florida and South Carolina and send a reminder recruitment email at two- and four-week intervals after the initial recruitment email has been approved. Thank you for submitting your follow-up recruitment document for our review and documentation. **For a PDF of your modification letter, click on your study number in the My Studies card on your Cayuse dashboard. Next, click the Submissions bar beside the Study Details bar on the Study Details page. Finally, click Modification under Submission Type and choose the Letters tab toward the bottom of the Submission Details page. If your modification required you to submit revised documents, they can be found on the same page under the Attachments tab.**

Thank you for complying with the IRB's requirements for making changes to your approved study. Please do not hesitate to contact us with any questions.

We wish you well as you continue with your research.

Sincerely,

G. Michele Baker, PhD, CIP
Administrative Chair
Research Ethics Office

Appendix B

Appendix C

Informed Consent

Title of the Project: Improving the socio-emotional competence of academic nurse educators: An experimental study

Principal Investigator: Helen Freeman [Doctoral Candidate, School of Nursing, Liberty University]

Invitation to be Part of a Research Study

You are invited to participate in a research study. To participate, you must have the ability to read and understand English and be an academic nurse educator.
Taking part in this research project is voluntary.

Please take time to read this entire form and ask questions before deciding whether to take part in this research.

What is the study about and why is it being done?

The purpose of the study is to determine the degree of effectiveness of EI education webinar and creating a reflection-guided professional development plan compared to EI education provided in written format on improving the socio-emotional competence in academic nurse educators.

What will happen if you take part in this study?

If you agree to be in this study, I will ask you to do the following:
1. Receive random assignment to either group red or blue.
2. Complete an online demographic survey [estimated time to complete- 5 minutes]
3. Complete an online pre-test Emotional Quotient Inventory (EQ-i) 2.0 assessment [estimated time to complete-20-30 minutes]
4. Complete an online emotional intelligence educational activity within two weeks of completing the pre-test Emotional Quotient Inventory (EQ-I 2.0) [estimated time to complete 60 minutes]
5. Complete an online post-test Emotional Quotient Inventory (EQ-i) 2.0 assessment two weeks after the completion of the educational activity [estimated time to complete- 20-30 minutes]

How could you or others benefit from this study?

The direct benefits participants should expect to receive from taking part in this study include education on emotional intelligence and strategies to use the knowledge gained to create an inviting learning environment that supports students in achieving the highest level of personal and professional success. Benefits to society include an improved socio-emotional competence in academic nurse educators. The nursing profession can benefit from this competence by the influence on the academic success and preparation for practice of nursing students and the physical and emotional well-being of academic nurse educators.

What risks might you experience from being in this study?

The expected risks from participating in this study are minimal, which means they are equal to the risks you would encounter in everyday life.

How will personal information be protected?

The records of this study will be kept private. Published reports will not include any information that will make it possible to identify a subject. Research records will be stored securely, and only the researcher will have access to the records. Participant responses will be kept confidential by replacing names with pseudonyms. Electronic copies of the data will be stored on a password-protected computer. After three years all electronic records will be deleted records of this study

How will you be compensated for being part of the study?

Participants will not be compensated for participating in this study.

Is study participation voluntary?

Participation in this study is voluntary. Your decision whether to participate will not affect your current or future relations with Liberty University. If you decide to participate, you are free to not answer any question or withdraw at any time without affecting those relationships.

What should you do if you decide to withdraw from the study?

If you choose to withdraw from the study, please contact the researcher at the email address/phone number included in the next paragraph. Should you choose to withdraw, data collected from you will be destroyed immediately and will not be included in this study.

Whom do you contact if you have questions or concerns about the study?

The researcher conducting this study is ███████████████████████████████████
██
███████████

You may also contact the researcher's faculty sponsor ████████████████████████████████

Whom do you contact if you have questions about your rights as a research participant?

If you have any questions or concerns regarding this study and would like to talk to someone other than the researcher, you are encouraged to contact the IRB. █████████████████
██

Disclaimer: The Institutional Review Board (IRB) is tasked with ensuring that human subjects research will be conducted in an ethical manner as defined and required by federal regulations. The topics covered and viewpoints expressed or alluded to by student and faculty researchers are those of the researchers and do not necessarily reflect the official policies or positions of Liberty University.

Your Consent

By typing your name below, you consent to participate in this study. Make sure you understand what the study is about before you sign. You can download and save a copy of this document for

your records by clicking this link. The researcher will keep a copy with the study records. If you have any questions about the study after you sign this document, you can contact the study team using the information provided above.

I have read and understood the above information. I have asked questions and have received answers. I consent to participate in the study.

Name   Date

Appendix D

Demographic Survey

Questions	Response Options
Select your gender	Female☐ Male☐ Transgender☐ Non-binary☐ Prefer not to say ☐
What is your ethnicity?	☐ African American ☐ Asian ☐ Caucasian ☐ Hispanic/Latino ☐ Other
How many years have you been teaching in higher education	< 1 year☐ 1-5 years☐ 6-10 years☐ 11-15 years☐ 16-20 years☐ 21-25 years☐ > 25 years☐
In what nursing program do you teach?	ADN ☐ BSN ☐ MSN ☐Doctoral ☐ Other ☐

Appendix E

EI Written Activity Outline

1. Definition of socio-emotional intelligence
   a. Importance of socio-emotional competence on a personal and professional level
2. Domains of emotional intelligence
   a. Intrapersonal
   b. Interpersonal
   c. Stress management
   d. Adaptability
   e. General mood
3. Strategies to improve socio-emotional competence.
   a. Activities to use in personal and professional development.
4. Additional resources on emotional intelligence

Appendix F

Study Invitation

Dear Academic Nurse Educator,

As an academic nurse educator, I am conducting research as part of the dissertation requirements for a PhD in Nursing Education. The purpose of my research is to determine the degree of effectiveness of socio-emotional intelligence education presented as a pre-recorded webinar and the creation of a reflection-guided professional development plan compared to the completion of EI education in written format on improving the socio-emotional competence scores in academic nurse educators. I am writing to invite you to join my study.

Participants must be an academic nurse educator and be able to read and understand English. Participants will be asked to:

1. Receive random assignment to either group red or blue using the Qualtrics randomizer.
2. Complete an online demographic survey. [estimated time to complete- 5 minutes]
3. Complete an online pre-test Emotional Quotient Inventory (EQ-i) 2.0 assessment. [estimated time to complete- 20-30 minutes]
4. Watch a pre-recorded emotional intelligence webinar and complete a reflection-guided professional development plan or complete an online written emotional intelligence activity. [estimated time to complete- 60 minutes]
5. Complete an online post-test Emotional Quotient Inventory (EQ-i) 2.0 assessment. [estimated time to complete- 20-30 minutes.

Names and other identifying information will be requested as part of this study, but participant identities will not be disclosed.

To participate, please click on the link provided in this email to access the informed consent provided in a Qualtrics survey.

Sincerely,

Appendix G

Study Information Summary

Dear participant,

Thank you for agreeing to be part of this study. This one Qualtrics survey includes the different parts of the study, and you can return at any time to the survey using the link provided in the initial email inviting you to participate. To go to the next page or part within the survey, please click on the next button at the bottom of the screen. You should plan to complete the **first three parts within the next two weeks**.

- The **first** part will be a short, four question demographic survey.
- The **second** part includes information and a link to a secure external website where you will take the pretest Emotional Quotient Inventory (EQ-i) 2.0. Upon completion of the pretest, please return to the Qualtrics survey to complete the next part.
- The **third** part of the survey includes a link to open and view the pre-recorded webinar. Once you have viewed the webinar, complete the verification survey question, and proceed to the next page to download and save to your computer or device the template for the reflection-guided professional development plan. The template should be used to help you create a reflection-guided professional development plan on how to apply the new socio-emotional knowledge and skills in your teaching practice. You will be asked to provide an email address where the information can be sent to complete parts four and five of the study.

You should **develop your professional development plan within two weeks of completing the education**. The plan is yours to keep as a guide in the application of socio-emotional knowledge and skills into practice.

- The **fourth** part of the study will be to return to the Qualtrics survey and enter a brief synopsis of the plan (top three goals you plan to work on over the next six months).
- The **final** part of the study will be to complete the posttest EQ-i. The information and link to the secure external website where you will complete the posttest will be sent to you two weeks after you complete the education. You will have an additional two weeks after you receive the information to complete the posttest.
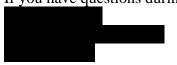
If you have questions during any part of the study, please do not hesitate to reach out.

Dear participant,

Thank you for agreeing to be part of this study. This one Qualtrics survey includes the different parts of the study, and you can return at any time to the survey using the link provided in the initial email inviting you to participate. To go to the next page or part within the survey, please click on the next button at the bottom of the screen. You should plan to complete the **first three parts within the next two weeks**.

- The **first** part will be a short, four question demographic survey.
- The **second** part includes information and a link to a secure external website where you will take the pretest Emotional Quotient Inventory (EQ-i) 2.0. When you complete the pretest, please return to the Qualtrics survey to complete part three.
- The **third** part of the survey includes links to open and read the educational materials about socio-emotional competence. When you click the link, the materials will open in a new window. After you complete all the educational materials, you will be asked to provide an email address where the information and link to the posttest EQ-i information can be sent.
- The **final** part of the study will be to complete the posttest EQ-i. The information and link to the secure external website where you will complete the posttest will be sent to you two weeks after you complete the education. You will have an additional two weeks after you receive the information to complete the posttest EQ-i 2.0.

If you have questions during any part of the study, please do not hesitate to reach out.

Appendix H

Codebook for Data Analysis

Assigned variable number	Variable description
Variable 1.	ID- Identification number assigned to each ANE (1001, 1002….1003)
Variable 2.	Gender- 1 = Female, 2 = Male, 3 = Transgender, 4 = Non-binary, 5 = prefer not to say
Variable 3	1 = African American, 2 = Asian, 3 = Caucasian, 4 = Hispanic/Latino, 5 = Other
Variable 4.	Years of teaching experience-1 = < 1 year, 2 = 1-5 years, 3 = 6-10 years, 4 = 11-15 years, 5 = 16-20 years, 6 = 21-25 years, 7 = > 25 years
Variable 5.	1 = ADN, 2 = BSN = 3 = RN-BSN, 4 = MSN, 5 = Doctoral, 6 = Other
Variable 6.	Pretest EQ-i score (total score for all the items measured < 60- > 140)
Variable 7.	Posttest EQ-i score (total score for all the items measured < 60- > 140)