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Emotional-Social Intelligence: Development During Online and On-Campus Holistic Healthcare Programs

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This is to certify that the doctoral dissertation by

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Walden University
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Abstract

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Dissertation Submitted in Partial Fulfillment

of the Requirements for the Degree of

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Abstract

As with traditional healthcare providers, emotional-social intelligence (ESI) plays a role in the holistic practitioner-client relationship. It is important to determine if students in holistic healthcare programs increase their ESI, and subsequently better serve their clients. The purpose of this quantitative, quasi-experimental study was to determine if online education can develop students' ESI at levels similar to that of traditional programs. This study is based on the theory of ESI and transformative learning theory. The sample consisted of 95 students in an online program and 61 in a traditional program. Multiple linear regression, ANCOVA, and Pearson Correlation's were used to explore the relationships between the independent variables professional standing, program delivery method, program progress, and number of classes with elements consistent with transformative learning theory, and the dependent variable emotional-social intelligence, as measured by the EQ-i 2.0 survey. The results of the study revealed no significant differences in the development of ESI between online and traditional methodologies, except within the self-expression category, for which online was higher. The number of transformative classes taken had no effect on the dependent variable. The positive social change implications of this study include a better understanding of the development of ESI for holistic healthcare, which could lead to a greater potential for success, as well as being better able to contribute to the stability of their communities through meeting the needs of those seeking their services. In addition, determining the relationship between transformative theories of learning and ESI development may assist in creating courses better suited to increasing students' ESI.

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Dedication

This work is first and foremost dedicated to my daughter as a proof that resilience, perseverance, and grit can overcome the most incredible challenges facing the completion of any goal. Second, it is dedicated to my father, whose own grit in the face of terminal illness provided a model for me to never give up. Finally, it is dedicated to forwarding the awareness of emotional intelligence and the promotion of balanced ways of being within all contexts, cultures, and communities.

Acknowledgments

I first want to thank my daughter, Rhiannon. Without your on-going support, flexibility, and patience with me through this process I would not have been able to keep going. Your own exceptional emotional intelligence and awareness is a model for me as I make my way in this world. Thank you from the bottom of my heart. You will always be my little girl.

Next, I want to acknowledge my dissertation committee and those at Walden University who made this possible. To Dr. Smolka, my chair: Your patience, unwavering support, clear direction, and perfect approach to accountability and motivation (mainly cowboy boots) kept me going in challenging times. You accepted me for who I am and allowed me to open up my own emotional intelligence through our many conversations. To Dr. Flohr, your expertise, ability to communicate nuance, and willingness to pursue completion with me, both in my classes and during my dissertation, made my understanding of quantitative methods possible. To my academic advisor, Neil Blumberg, you never gave up on me. I promised you I would see this through, thank you for holding me to that promise. To my program chair, Dr. Maryfriend Carter, your understanding and ability to hold my emotional turmoil during the most difficult time in my life was far beyond the duties of your position, and I will never forget them.

Finally, to my fellow Shadow Dogs, there are no words that can express my gratitude for your unwavering support of my process. You have been my rock of truth and accountability. May this work help forward not only the development of emotional intelligence within academia, but through my connection with the Mankind Project, help

men across the world find, get in touch with, and appropriately express their own emotions. For any reader interested, please go to http://www.mankindproject.org and help us change the world one man at a time.

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Chapter 1: Introduction to the Study

Introduction

Emotional intelligence (EI) has become a part of social, psychological, medical, and educational research for nearly three decades. In that time, EI has been connected to job performance (Goleman, 1995), academic achievement (Nasir & Munaf, 2011), healthcare efficacy (Collins, 2013), language development (Zabihi, 2013), and criminal activity (Megreya, 2013). In the same timeframe, interest in more traditional and holistic approaches to health care has increased significantly. As with traditional health care, these approaches to wellness inherently involve connection with client's emotional as well physical selves. This in turn has prompted additional interest in educational opportunities for those wanting to meet that interest (Jafari, Abdollahi, & Saeidnia, 2014; Litchy, 2011; Pérard, Mittring, Schweiger, Kummer, & Witt, 2015; Woodward, Norton, & Bariball, 2012). In addition, as reported by the ongoing efforts of the Online Learning Consortium's (2016) annual reports, the number of students enrolling in online education has also increased. At the intersection of EI, adult education (online or on-campus), and holistic healthcare lies concepts of personal transformation and transformative learning – the hope for a way to teach adults that leads to a balance of critical self-reflection with an understanding of others to improve learning and mutual understanding (Mezirow, 2003).

Background

Recent research into EI revealed three theorists that have become the most prevalent on the topic: Bar-On (2006), Mayer & Salovey (1997), and Goleman (1995). These theories are categorized by their approach to EI as ability-based, trait-based, or a

mix of the two (Cherry et al., 2014). Ability-based approaches see EI as a construct of traditional intelligence (Van Zyl & de Bruin, 2012), while trait-based models refer to EI more as an attribute like personality (Megreay, 2013). Theories in all three approaches have been used in EI research related to the development of EI, academic achievement, health care, and online learning. I will further explore each of these areas of research, along with the approaches developed by Bar-On, Mayer & Salovey, and Goleman in the literature review.

In juxtaposition to the multiple theorists for emotional intelligence, Mezirow (1997) is generally agreed upon as the single source of the transformative learning theory. This theory is an approach to adult learning that integrates the critical reflection of others' assumptions with the critical self-reflection of an individual's own assumptions through a disorienting dilemma and subsequent reframing of conscious and unconscious mental patterns (Mezirow, 1997, 2003). As will be discussed in further detail in Chapter 2, this approach to adult learning is reflective of both EI and approaches to training in holistic healthcare.

EI has grown in popularity and academic research since Goleman (1995) published a book on the subject. Since that time researchers have connected its influence to areas of business, traditional healthcare, education (e.g., on-campus and online), and more. However, my searches of prominent databases revealed there were no studies available at the time of the study that explored the relationship of EI to alternative or holistic education. Moreover, there were no studies connecting the development of EI

within students' training to be holistic healthcare practitioners in both online and on-campus courses. In this study, I sought to address each of these areas.

Interest in holistic healthcare has grown (Litchy, 2011; Jafari et al., 2014; Pérard et al., 2015, p. 1; Woodward et al., 2012), and its benefits and potential is increasingly researched. This is in part due to a demand for approaches to health and wellness that rely less on pharmaceutical approaches to symptomatic care and more on natural means of preventative care. As such, it is necessary to determine the most effective means for training effective practitioners. With this study, I hoped to reveal the relationships between EI, academic achievement, transformative learning, and the delivery of holistic healthcare training in order to support the increase of qualified holistic healthcare practitioners to meet a growing demand from interested clients.

Problem Statement

There has been an increasing amount of research regarding the relationship between emotional-social intelligence (ESI), health care, and both on-campus and online education. Many researchers have found that ESI is linked to effective health care and patient-doctor relationships (Cherry, Fletcher, O'Sullivan, & Dornan, 2014; Collins, 2013). In addition, several have explored the development of ESI within on-campus healthcare education (Cherry et al., 2014; Larin, Benson, Wessel, Martin, & Ploeg, 2014). It is also clear that students experience emotional and social connections within an online environment (Meyer & Jones, 2012) and that their level of ESI has an effect on classroom participation (Han & Johnson, 2012). Furthermore, research established that a student's ESI has an impact on their academic performance (Behnke & Greenan, 2011; Berenson,

Boyles, & Weaver, 2008). Finally, Larin et al. (2014) demonstrated that small but significant improvements in students' ESI could occur organically during the course of a healthcare-related program. In this case, *organically* implied students who had not taken any classes specifically intended to increase their ESI. What remained unclear is the connection between holistic healthcare students' ESI and the modality through which they were trained. In short, it remains to be determined whether online education can adequately prepare holistic healthcare students' ESI as well as on-campus education.

Purpose of the Study

The overarching purpose of this quasi-experimental quantitative study was to determine the extent to which the development of ESI was influenced by the educational delivery method. To make this determination in the study, I employed a cross-sectional review of online and on-campus holistic healthcare students. In this study, I first explored if there was a difference in the ESI levels of all students as they progressed through their program. Secondly, I checked to see if there was a statistically significant difference in that progression between online and traditional education. Finally, I attempted to determine the influence on students' ESI levels of courses that contained aspects of transformative learning design. Using these methods in the study, I endeavored to understand the connection between online and on-campus students in relationship to their ESI levels.

Research Questions

The following research question and subquestions guided this study: Is there a difference between the ESI levels of students as they progress through their online or traditional holistic healthcare program?

a. Is there a difference between online and traditional education?
b. Does the number of classes taken by students that contain elements of transformative learning influence the development of their ESI?

I derived the following hypotheses from the research question and subquestions:

$H1_0$: There is no difference in online and traditional students' level of ESI as they progress toward graduation.

$H1_a$: Students' ESI increases in both online and traditional students as they progress toward graduation.

$H2_0$: There is no difference in the ESI levels of online and traditional students at any point in their Holistic Healthcare Program.

$H2_a$: There is a difference in the ESI levels of online and traditional students at as they progress through their Holistic Healthcare Program.

$H3_0$: There are no differences in the levels of ESI for students taking courses with transformative and non-transformative design elements.

$H3_a$: There is a difference in the levels of ESI for students who have taken courses with transformative design elements compared with students who have not.

Theoretical Frameworks

I used two theoretical frameworks in this study. The first was ESI (Bar-On, 2006) and the second was the transformative learning theory (Mezirow, 1997). ESI was challenging to define due to the variety of approaches in current literature. Generally, ESI includes characteristics of "self-perception, maturity, and self-actualization" (Behnke & Greenan, 2011, p. 65). Current studies leaned most heavily upon theories of EI (Goleman, 1995, 2005; Mayer, Salovey, & Caruso, 2000) or of ESI (Bar-On, 2006). The former approach defines EI as a collection of personality traits or abilities (i.e., knowing emotions, managing emotions, motivating oneself, recognizing emotions in others, and handling relationships) (Goleman, 1995, 2005). Alternatively, the latter is considered a combination of both personality and mental ability, otherwise known as a mixed model of EI (Bar-On, 2006).

Emotional-Social Intelligence (ESI)

ESI is a mixture of personality and mental ability (Bar-On, 2000, 2006). The five primary categories within this framework are (a) self-perception, (b) interpersonal, (c) stress management, (d) decision making, and (e) self-expression (Multi-Health Systems (MHS), 2011). These are each subdivided into subscales that describe both personality and mental traits (MHS, 2011). This mixture is self-evident when examining the 15 subscales: self-regard, emotional self-awareness, self-actualization, empathy, social responsibility, interpersonal relationship, flexibility, stress tolerance, optimism, reality-testing, impulse control, problem-solving, emotional expression, assertiveness, and independence (CITE). Measuring EI effectively requires an awareness of the importance

of both intelligence traits, as well the as personality traits distinct from cognition (Berenson et al.; 2008; Han & Johnson, 2012). My exploration of ESI and holistic healthcare in this study included student characteristics that are both personality traits and traditional measures of intelligence. As such, it was critical to employ not only a conceptual framework that accommodates these different characteristics but also an instrument that can measure them.

The EQ:i 2.0 (MHS, 2011) instrument was based upon Bar-On's work (2000, 2006) and combines measures of both personality traits and intelligence. The 15 subscales allowed for a thorough exploration of student traits that may influence the development of ESI. Furthermore, the significant validation of the EQ-i's results, as well as its extensive norming across age, gender, and culture made it a fitting instrument for the diverse culture within holistic healthcare (Bar-On, 2006). Studies similar to this one that utilized Bar-On's framework and a shortened version of the EQ:i validated the appositeness of this combination for this current study (Parker, Duffy, Wood, Bond, & Hogan 2005). As I mentioned earlier in the chapter, at the intersection of EI, adult education, and holistic healthcare lays concepts of personal transformation, which is the guiding value of the institution under study.

Transformative Learning Theory

This study used elements of transformative learning theory (Mezirow, 1997, 2003) to help frame the educational processes in place for both on-campus and online classes. The theory represents "the epistemology of how adults learn to think for themselves rather than act upon the assimilated beliefs, values, feelings, and judgments of

others" (Mezirow, 2003, p. 1). The theory's integration of feelings, values, moralities, and personal transformation are present in many of the classes at site under study. In Chapter 2, I will explore the existing literature on the transformative learning theory, as well as that for ESI, and their relationships in more detail.

Nature of the Study

I chose a quasi-experimental, contrasted-group quantitative study design for this study because the exposure of the subjects to the treatments could not be controlled (Campbell & Stanley, 1963; Frankfort-Nachmias & Nachmias, 2008). The benefits of this design were an ability to complete the research in the natural setting using probability sampling, and it also allowed for the study of subjects when it was impossible to assign them to an experimental group (Frankfort-Nachmias & Nachmias, 2008). In this study, the independent variables included program delivery method, program progress, transformative classes taken, and prior experience (See Table 1).

Table 1

Variable Definitions

Variable Name	Variable Definition	Data Type
Program delivery method	Participant's chosen delivery method	Binary
Program progress	Participant's program progress	Continuous
Transformative classes taken	Quantity of transformative classes completed	Continuous
Prior experience	Prior level of professional experience	Continuous

The independent variable of program delivery method referred to the teaching modality in which each student was enrolled. This was a binary variable with two options: online and traditional. Online, referenced classes being taken through the institutions learning management system in a fully facilitated, asynchronous environment. In this environment, students were responsible for maintaining progress with weekly assignment deadlines (Monday–Sunday), communicating with fellow students and instructors in the discussion boards, and organizing and participating in any local activities that allow them to practice the theory they are learning. Traditional referred to students in face-to-face classrooms that met at regular times and may or may not have homework in-between class sessions.

Program progress was a continuous independent variable that referred to the student's temporal position within their program of study. This was expressed through the number of credits completed to the expected credits necessary for graduation of a 60 credit Associate of Occupational Studies (AOS) program. Credits completed accounted for classes passed within the school's definitions of satisfactory academic progress, which meant the received course grade had to be a C or better.

Transformative classes taken was a continuous variable that referred to the number of classes a student had completed that contained elements of transformative learning theory. The institution under study had not formally adopted this theory as part of is course design paradigm; however, elements of it have been unconsciously integrated for many years due to the mission, vision, and values of the institution. Each course was evaluated against the characteristics of transformative learning (Mezirow, 1997, 2003) by

subject matter experts and categorized as transformative or nontransformative based upon the presence of a disorienting dilemma, opportunity for critical self-reflection, and assessment of a change in point of view or frame of reference. To test the research question and subquestions, outside of those to determine adherence to relevant assumptions and data integrity, the primary statistical tests I used in this study were multiple linear regression/MANOVA and Pearson correlation or regression. These were necessary as there were multiple continuous outcome variables (ESI) and two or more continuous and categorical independent variables (Field, 2013).

Definitions

In this section, I will define several terms used in this study that may be unfamiliar to those outside the context of the institution and study. Each of these terms will be explored in more detail in Chapters 2 and 3. Terms defined here include ESI, holistic healthcare, practitioner, and transformative learning.

Emotional-social intelligence (ESI): ESI has been defined in many ways. This study adopted Bar-On's (2006) definition of ESI as "a cross-section of interrelated emotional and social competencies, skills and facilitators that determine how effectively we understand and express ourselves, understand others and relate with them, and cope with daily demands" (p. 14). This definition encompasses five key components: (a) the ability to recognize, understand, and express emotions and feelings; (b) the ability to understand how others feel and relate with them; (c) the ability to manage and control emotions; (d) the ability to manage change, adapt, and solve problems of a personal and interpersonal nature; and (e) the ability to generate positive affect and be self-motivated

(Bar-On, 2006, p. 14). This definition reflected my intention of evaluating the growth of all aspects of ESI across the length of the program in this study.

Holistic healthcare: In this study, this term was used to define an approach to maintaining health and wellness, the content of educational programs, and the type of institution being studied. This approach to health and wellness is also known as complementary, alternative, and/or integrative medicine. In this study, I adopted the National Center for Complementary and Integrative Health (NCCIH) (2015) definitions of complementary, alternative, and integrative medicine as follows:

> Complementary: when "a non–mainstream practice is used together with conventional medicine" (para 4).
>
> Alternative: when "a non–mainstream practice is used in place of conventional medicine (para 5).
>
> Integrative: "Bringing conventional and complementary approaches together in a coordinated way" (para 7).

Regarding the type of education offered at the institution, holistic healthcare referred to training that prepares an individual to practice modalities considered holistic, integrated, or complementary. These included hypnotherapy, life coaching, yoga, holistic nutrition, massage, energy work, herbalism, and spiritual studies. At the same time, holistic referred to the overall approach of the institution to education and student support. Educational approaches were more inclusive and student centered, allowing students more input and equal relationships with faculty and the material. Student

support services leveraged life coaching and a fully supportive approach toward helping students succeed.

Holistic healthcare practitioner: An individual who practices one of the many modalities included in holistic healthcare (e.g., hypnotherapy, life coaching, yoga, holistic nutrition, energy work, etc.). Practitioners generally work as independent contractors in their own offices or in conjunction with other practitioners, chiropractic doctors, naturopathic doctors, or medical doctors. They may also work in a hospital that has an integrative medicine or complementary and alternative medicine center.

Transformative learning: While this term will be described more fully in the literature review, transformative learning is "the epistemology of how adults learn to think for themselves rather than act upon the assimilated beliefs, values, feelings, and judgments of others" (Mezirow, 2003, p. 1). Those using transformative learning seek to create learning environments that allow students to become independent and explore and honor their own path toward expressing their passions and serving their communities.

Assumptions

As with all studies, there were some aspects of this study that I believed but could not necessarily demonstrate to be true with all certainty. Students' levels of ESI were measured through the EQ:i 2.0 instrument, which has been proven reliable and valid (MHS, 2011). Similarly, student progress was clearly demonstrated through their objective place within their program, which was a demonstration of their time in class. However, one assumption I made in this study was that students had the reflective capacity to accurately and fully complete the EQ:i 2.0 instrument. It was reasonable to

assume this was the case as the students were participating in and progressing through college level classes in holistic healthcare. Another assumption was that some courses would clearly demonstrate aspects of transformative learning theory. This had yet to be formally evaluated by the school or by me at the beginning of the study but could have significantly influenced the outcome of that research question. There was also an assumption that ESI is an important part of being a holistic health practitioner. Finally, I made an assumption that ESI itself can be learned and change and grow within students.

Scope and Delimitations

The population I included in this study was comprised of students in the online and traditional versions and courses leading to the completion of a 2-year AOS degree at a small, private, holistic healthcare college in the southwestern United States. From a theoretical perspective, this study rested upon Bar-On's (2006) conceptualization of ESI and Mezirow's (1997) ideas of transformative learning. As discussed above, Bar-On's approach most closely matched the intentions of the study and combines emotional and social components. Excluded then were the approaches of Goleman (1995) and Mayer and Salovey (1997). The former focuses more on skills related to the performance of managers in business and is measured through multirater assessment, which does not apply in this context. The latter looks more at an individual's ability to "perceive, understand, manage, and use emotions to facilitate thinking, measured by an ability based measure" (Bar-On, 2006, p. 14).

The results of this study may be generalizable to future students at the same institution who enroll in the programs studied. Additionally, schools with similar

programs and demographics may apply the results to their own students. These results will most likely not be transferrable to traditional healthcare institutions that do not employ a similar set of values nor online programs using different delivery and instructional design methodologies.

Limitations

The quasi-experimental nature of the design did not allow for pre- and post-testing of the subjects as I could not manipulate the treatment and needed to rely on statistical analyses to approximate control (Campbell & Stanley, 1966; Frankfort-Nachmias & Nachmias, 2008). Specifically, a contrasted-group design was necessary, as there was no way to assign subjects randomly to the programs and delivery methodologies. This weakened the internal validity of the study when compared to experimental designs (Frankfort-Nachmias & Nachmias, 2008). However, a focus on exploring potential uncontrolled factors that may explain results increased the study's validity (Campbell & Stanley, 1966). Finally, the direction of the relationship between the variables had to be inferred, as independent variables could not be changed (Frankfort-Nachmias & Nachmias, 2008). To counteract these, I planned to use proportionally stratified probability sampling in the study to help allow comparison of like groups between online and on-campus classes and control for a lack of pretest data.

Sources of bias for this study came from three directions: (a) demand characteristics, (b) experimenter bias, and (c) measurement artifacts (Frankfort-Nachmias & Nachmias, 2008). Demand characteristics occur when participants know they are a part of a study and respond in a way they think the researcher wants (Frankfort-Nachmias

& Nachmias, 2008). As this study did not have an experimental element, this was not a concern. The second concern, experimenter bias, did not apply from the standpoint of a traditional experiment through which the researcher's presence might influence the direction of the experiment. However, it was possible that my delivery of information regarding the instrument might have influenced a student participants' perception. To mitigate this, students were provided with a written statement to inform them of the intention of the survey. These instructions were vetted by my Institutional Review Board (IRB) to ensure a lack of bias. Finally, I reduced measurement artifacts by the proven reliability and consistency of the instrument itself (Bar-on, 2000; MHS, 2011). Concerns over self-reporting bias were specifically handled by the integration of counter-measures within the instrument as I will discuss in further detail in following chapters (Grubb III & McDaniel, 2007; Monselise et al., 2013).

Significance

As mentioned earlier in this chapter, there has been an increase in societal interest in alternative and holistic healthcare (Jafari et al., 2014; Litchy, 2011; Pérard et al., 2015; Woodward et al., 2012). As with any form of patient care, filling this need requires institutions to ensure they are implementing the most effective and viable delivery methods for holistic healthcare education in order to protect patients seeking treatment. In addition, existing research has drawn clear connections between effective healthcare and ESI (Cherry et al., 2014; Collins, 2013).

As online education has also significantly increased over the past 20 years (Online Learning Consortium, 2016), institutions teaching holistic healthcare are looking to it as a

potential delivery method and seeking the most effective learning theory on which to base course designs. However, there are gaps in the research related to the intersection of these areas of ESI, online learning, adult learning theory, and holistic healthcare. Specifically, there was a need for studies with sample sizes large enough to create more generalizability of the results to other situations (Behnke & Greenan, 2011). Additionally, there were calls for these larger studies to confirm the existing tenuous connection between students' ESI and their Grade Point Average (GPA) (Berenson et al., 2008), as well as the best instructional and course design methods to support the integration of ESI and online learning (Meyer & Jones, 2012). GPA is a measure of student progress that divides overall quality points received by the number of credits attempted. The process of exploring the potential for an organic increase in ESI through the course of a program has begun (Larin et al., 2014), but this topic needed to be extended into a larger study and into the online environment.

With this study, I hoped to advance educational technology's current knowledge base through its exploration of online education's ability to support students' ESI growth as it relates to the effectiveness of holistic healthcare training. The difference these results could make to the clients of the growing field of holistic healthcare is significant through its determination of the most effective ways to train practitioners. Practitioners who are well-trained and have appropriate levels of ESI may be able to better serve their clients and protect their overall health and wellness (Cherry et al., 2014; Collins, 2013). Another important contribution of this study could be understanding more about the potential that students' ESI has on their classroom participation (Han & Johnson, 2012)

and academic performance (Behnke & Greenan, 2011; Berenson et al., 2008). If a significant difference was found, further research could explore course design and instructional methodologies that support ESI as students move through their programs.

Finally, discovering additional pathways toward the development of an individual's overall ESI, while not specifically significant to educational technology, could have had broad potential for the improvement of individuals and communities. EIs have been considered as zeitgeist, personality traits, and mental abilities (Mayer et al., 2000). It is this last area that carried the potential for operationalization and measurement and subsequent improvement. As a person develops through the four branches of EI (i.e., emotional perception, emotional integration, emotional understanding, and emotional management), they become more aware of appropriate expression of their emotions, can consider their meaning, and "promote emotional, intellectual, and personal growth" (Mayer et al., 2000, p. 108). The more people in a community that move through this cycle of the four branches of ESI, the more potential exists for community and societal growth.

Summary

With the increases in demands for holistic healthcare, a need to fill that demand, the relevance of ESI to practitioners, and the increase the popularity of online education, research needed to be conducted to ensure online education can properly train students to become holistic healthcare professionals. Through the intersection of Bar-On's (2006) model of ESI and Mezirow's (2003) ideas of transformative learning, in this study, I sought to answer that question. I did so by comparing and contrasting the development

of ESI in students in online and traditional versions of the same holistic healthcare courses at a small, private college in the southwestern United States. My intention was to contribute to the increasing literature surrounding ESI and provide a foundation upon which future research may determine the most effective methods to support and improve students' ESI within the online environment. While this chapter included a cursory review of extant research on the topic, in the following chapter I will examine the existing literature in depth.

Chapter 2: Literature Review

Introduction

While not the first author to research and write about EI, Goleman's work, *Emotional Intelligence: Why It Can Matter More than IQ* (1995) popularized its study and integration into the world of business and human performance. Today, scholars and practitioners alike are interested in the causal relationship of ESI with job performance, academic achievement, and healthcare. Research interests proceed from places of theoretical exploration, to curriculum design, to effective operationalization (Bar-On, 2006; Behnke & Greenan, 2011; Berenson et al., 2008; Cherry et al., 2014; Crowne, 2013; Lindsey, 2014; Mayer & Salovey, 1990, 2004). In this study, I considered ESI from both an academic achievement perspective, as well as an operational perspective. The former was in relationship to delivery methodology (i.e., online or traditional), while the latter related to the presence of transformative learning and ESI levels within students.

As an integrated part of success in the workplace, ESI has secured a strong footing since Goleman's (1995) work. Multi-Health Systems Inc. (MHS), who is the distributor and collector of Bar-On's Emotional Quotient Inventory (EQ:i) 2.0, clearly states that ESI is frequently a better indicator of someone's potential success than their general IQ (Lindsey, 2014). Furthermore, an individual's intelligence, no matter how high, is still mitigated by how they communicate and interact with others, and this implied that ESI plays a role in communication and interpersonal relationships (Lindsey, 2014). Employers increasingly desire these interpersonal skills and see how they relate to

social conscientiousness and the ability to create and sustain long term and fulfilling relationships (Grubb & McDaniel, 2007; Lindsey, 2014). Similarly, businesses increasingly see ESI as a part of employees' success (Nicholls, Wegener, Bay, & Cook, 2012) and as a measure for "leadership style, emergent leadership, and leadership perceptions … and [has] been discussed as predictors of job performance" (Grubb & McDaniel, 2007, pp. 43–44).

Academically, researchers have studied ESI in a variety of settings. Interculturally and intraculturally; online and traditional; instructional design; academic achievement; demographic factors, and their relationship to mathematics, language acquisition, sciences, and other subjects have all been evaluated within or around one of the theories of ESI (Ghajarzadeh & Mohammadifar, 2013; Grubb & McDaniel, 2007; Kreuger & Blignaut, 2013; Lindsey, 2014; Maulding & Roberts, 2012; Meyer & Jones, 2012; Provident et al., 2015; Yüksel & Geban, 2014; Zabihi & Dabaghi, 2013; and Zembylas, 2008). Some have found that emotions are an important element of both a teacher's approach to instruction and students' approaches to learning (Kruger & Blignaut, 2013). In technology-rich learning environments, research has found ESI helps alleviate the stress associated with academic technologies (Kruger, 2013; Zembylas, 2008). Bolstering these relationships, others pointed to studies that indicate "successful college graduate[s] must possess a ratio of 80% ESI to 20% book smarts" (Lindsey & Rice, 2015, p. 127). However, what had yet to be studied within the academic environment was the relationship between ESI and holistic health care students within both online and traditional programs.

From the perspective of traditional healthcare and through the work of researchers, many practitioners and patients call for approaches to healing that are more focused on being a *person-centered practice* that is more safe and effective. However, this continues to prove to be a challenge for providers (Christie & Camp, 2014). Some have discussed the potential for individuals in professions that require caring and concern for others (e.g., nurses, doctors, etc.) to benefit from higher levels of emotional intelligence (Basseda, Amini, Sharifi, Kaviani, Pooretemad, & Zadbood, 2012). Others indicated that medical students need "to be able to communicate with patients in order to understand their feelings and emotions in the right way" (Ghajarzadeh & Mohammadifar, 2013, p. 185). In general, the healthcare field is seeking both graduates and practitioners who have highly functional ESI and the abilities to lead in a caring and ethical way (Larin et al., 2014). The healthcare field continues to say practitioners need to understand not only their patients' emotions, but also their own, so they can use that information when collaborating with other doctors and nurses to help patients better manage the stress of hospitalization potentially improve results (Cherry et al., 2014; Collins, 2013; and Larin et al., 2014). This evidence from the literature demonstrated a clear need for the exploration and development of ESI within healthcare professions. Doing so has the potential to improve patient-doctor relations and healing; therefore, the question for this study became one of developing ESI within practitioners.

While ESI had been researched in many areas related to education, healthcare, and its ability to be developed within an individual, this area is still "in its infancy" (Cherry, Fletcher, O'Sullivan, & Dornan, 2014, p. 474). One area still underexplored, yet

related to each of the above, is within the education and practice of holistic healthcare. To address this gap, in this study I explored:

(a) the levels of ESI between students enrolled in an online or on-campus holistic healthcare program;

(b) the significance of any differences between the ESI levels of students as they progress through their program; and

(c) the significance of any difference between the ESI levels of students and the number of courses they have taken that contain characteristics of transformative learning design.

In the remainder of this chapter, I will discuss (a) the literature search strategy; (b) the theoretical foundations of ESI, transformative learning, healthcare, and holistic healthcare; (c) ESI as it relates to healthcare, holistic healthcare, and transformative learning; and (d) the potential for the development of ESI in students through online and on-campus education.

Literature Search Strategy

To find articles related to ESI, online education, holistic healthcare, and transformative learning, I searched Academic Search Premier, ERIC, Education Research Complete, PsychArticles, PsychTests, CINAHL Plus with Full Text, and MEDLINE with Full Text. However, some research threads led to resources outside of these databases, such as government and university websites. Keyword search terms used included: *emotional intelligence, emotional social intelligence, emotional intelligence + online, emotional social intelligence + online, emotional intelligence + gpa, emotional social intelligence*

+ gpa, EQ:i, EQ:i-S, transformational learning + emotion, transformative learning + EI, transformative learning + ES, transformative learning + emotional intelligence, transformative learning + emotional intelligence, transformative learning + healthcare, transformative learning + online, Mezirow + emotional intelligence, Mezirow + EI, and *Mezirow + ESI.* I restricted results to peer-reviewed, full-text articles published between December 2011 and November of 2015. Seminal articles by primary theorists (i.e., Bar-On, Salovey, and Goleman) as well as other important research articles were also included regardless of their publication date.

In addition to peer-reviewed research articles, I also searched ProQuest Dissertation database to find relevant full-text papers published within the last 10 years. Table 2 shows the combinations of search terms used, the number of results from each combination, and the number of articles selected after reading their abstracts. The broad searches of emotional intelligence and EQ:i, which yielded 1,479 combined results, subjects were limited to emotional intelligence, higher education, adult education, academic achievement, community colleges, community college education, continuing education, health education, vocational education, and success factors. Many dissertations overlapped within each category. After final selection, only five dissertations were reviewed for the study.

Table 2

ProQuest Search Results

Search Term	Results	Initially Selected
Emotional Intelligence	1,324	
emotional intelligence AND online education	50	6
emotional social intelligence AND holistic	0	
ESI AND holistic	0	
emotional social intelligence	12	0
emotional social intelligence AND healthcare OR health care	1	0
emotional intelligence AND healthcare OR health care	89	21
emotional intelligence AND holistic	13	0
emotional intelligence AND complementary and alternative medicine	0	
emotional intelligence AND integrative medicine	0	
emotional intelligence AND distance education	2	0
emotional intelligence AND distance learning	7	0
emotional social intelligence AND distance learning	0	
emotional social intelligence AND distance education	0	
ESI AND distance education OR distance learning	0	
EQ-i AND distance learning	0	
EQ-i AND distance education OR online education	0	
EQ-i	155	60

Theoretical Foundation

Studying the intersection of developing ESI within the context of online and traditional education, to meet the professional needs of holistic healthcare practitioners, represented a convergence of multiple theoretical foundations. In many ways, this convergence touched upon hundreds of theoretical constructs within education, psychology, and healthcare, each with their own rich lineage. As an exploration of each of these was well beyond the scope of my research, the most relevant theories created its foundation. These constructs included ESI, holistic healthcare, and transformative learning.

ESI was the most prominent of these, followed by construct of holistic healthcare, and then transformative learning. In this section, I will explore each of these theories through current research articles that used them in their studies. I will first examine approaches to ESI in general, and then explore the three primary theories of ESI (i.e., Goleman (1995), Mayer and Salovey (1990), and Bar-On (2006)), which have a lineage that goes back to Thorndike, who in the 1920s indicated "social intelligence as the ability to understand and manage people" (Crowne, 2013, p. 105). ESI also contains elements clearly distinct from social intelligence (Crowne, 2013) and was first coined by Bar-On in the late 80s (Bar-On, 2006). However, ESI was first academically developed by Mayer and Salovey in 1990 (Zabihi & Dabaghi, 2013). My review of ESI will then discuss its relationship to healthcare, developing ESI, ESI and academic achievement, ESI and individual characteristic, EQ-i 2.0 subscales, and then ESI within online education.

I will explore holistic or alternative healthcare to provide a defining and operational construct for readers unfamiliar with its frameworks, also referred to as integrated medicine and complementary and alternative medicine (CAM). For many conditions, holistic healthcare is growing in popularity and acceptance within certain hospitals and communities (Litchy, 2011; Marshall et al., 2011; Pérard et al., 2015; and Woodward et al., 2012). In this section, I will also discuss links between ESI and traditional healthcare professions as well as methods of training practitioners.

Transformative learning will also be discussed in this section as an educational approach related to both the integration of emotion into adult learning theory, as well as a theoretical framework for the institution participating in the study. Transformative learning was introduced by Mezirow in the 1970s and subsequently refined over the past four decades (Mezirow, 1997, 2003). Mezirow's work has brought together adult learning theory and emotions "to help explain the perspective transformations that characterize the experiences of adult learners" (Wright & Hodge, 2012, p. 360). Transformative learning, or *deep learning*, occurs during times when students' emotions are profound.

In this review, I will also discuss links between transformative learning and online education in an effort to demonstrate consistency of potential between delivery methods (i.e., online and traditional). Research in this area has explored transformative learning in online classrooms focused on intercultural border relations (Barraclough & McMahon, 2013) and the presence of transformative learning within discussion board posts and through the application of critical thought (Oyeleke, Olugbenga, Oluwayemi, & Sunday,

2015; Provident et al., 2015). In addition, researchers have studied transformative learning and online learning designs (Rossi et al., 2015) as well as the possibility of online learning being transformative (Hoskins, 2013).

Emotional Social Intelligence (ESI)

As I mentioned earlier in the chapter, there are three primary approaches or theories to EI and ESI in current literature: Bar-On (2006), Mayer and Salovey (1990, 2004), and Goleman (1995). There are other theorists, however their traction in research literature has been much less than the three discussed here. In this subsection, I will first examine some of the historical foundation of these theories. Following that, I will review the approach of each of the three primary theorists.

For some, EI theory can be traced back to Darwin's work on the recognition of emotional expression as a survival mechanism (Lindsey, 2014; Sparkman, Maulding, & Roberts, 2012, p. 644). Bar-On (2006) specifically feels that Darwin's work informs how Bar-On's model integrates effective adaptation in social circumstances. In modern times, many recognize Thorndike's 1920 work on social intelligence as the precursor to EI (Bar-On, 2006; Crowne, 2013; Lindsey, 2014). Thorndike emphasized social intelligence as an ability to get along with and manage an individual's relationships with others, an aspect of interpersonal relationships that would become a part of each of the current theories (Crowne, 2013, p. 105; Lindsey, 2014, p. 7). In the mid to late 30s, Wechsler further developed the idea of social and emotional intelligence by considering the influence of one's affective parts of cognition to be important to success (Lindsey, 2014). Bar-On echoes this understanding stating that "Wechsler wrote about the influence of

non-intellective factors on intelligent behavior which was yet another reference to" the construct of emotional intelligence (p. 13). Further work by other researchers reinforced this concept that general intelligence contains elements of social intelligence.

It is at this point that some researchers diverged in their opinion of the development of ESI. One path traced development of emotional intelligence to Maslow's work on the potential for individuals to develop their emotional strength (Lindsey, 2014). That work is linked to Gardner's development of multiple intelligences in 1975 who wrote,

> "in an advanced form, interpersonal knowledge permits a skilled adult to read the intentions and desires - even when these have been hidden … and potentially, to act upon this knowledge - for example, by influencing … to behave along desired lines" (Lindsey, 2014, p. 240).

After Gardner, this path leads to Payne as being responsible for creating the term "emotional intelligence" in a dissertation from 1985 (Lindsey, 2014). This connects the history to the modern era, through the seminal work of Mayer and Salovey (1990), that lead to Goleman (1995) brining the ideas of EI out of psychology and academic research into the mainstream (p. 7).

The other path diverges from Wechsler's work in the mid to late 1930s, and moves to work being completed simultaneously with alexithymia and social intelligence (Bar-On, 2006). Alexithymia studies the inability for an individual to see, integrate, and use emotions in their daily life (Bar-On, 2006). That work motivated research in two directions, one focused on "psychological mindedness" by Appelbaum, and the other

focused on “emotional awareness” by Lane and Schwartz (Bar-On, 2006). It then reconnects with the first developmental path and recognizes the work Gardner did in 1983 combining interpersonal and intrapersonal intelligences (Bar-On, 2006). The former related to emotional intelligence and the later related to social intelligence. Bar-On then highlighted the work Saarni completed in 1990 that integrated eight social and emotional competences. It is through these influences that Bar-On adopted ESI as a model reflecting a wider construct, as compared to the narrower concept of EI.

Ability, Trait, and Mixed

Upon that foundation, as mentioned above, three modern theorists built their EI and ESI theories. Prior to exploring these, it is important to understand the overall differences in their approaches. In general, these theories have been categorized into ability based, trait based, or a mix of ability and trait based (Cherry et al., 2014, p. 471). These categorizations describe both the mechanisms through which emotions are related to general cognitive intelligence, as well as the methods through which EI can be measured (Lindsey, 2014, p. 17). EI researchers and theorists are split between those that maintained the ability and trait models must stay distinct (e.g., Mayer and Salovey, 1990), while others felt they can be mixed (e.g., Bar-On, 2006; Goleman, 1995). Research has previously found little or insignificant correlation between the ability and trait models, reinforcing the idea that the approaches are distinct from each other (Lindsey, 2014).

Ability models of EI correlate it with a traditional intelligence or set of cognitive skills. Some have referred to the ability approach as related more to "traditional

intelligence [that] integrates a set of skills that combines emotions with cognition" (Van Zyl & de Bruin, 2012, p. 532). Instruments measuring this model focus on an individual's performance on multiple measures and situational testing. Mayer, Caruso, Panter, and Salovey (2012) feel that "such ability measures constitute the 'gold standard' in the area because intelligence is a mental ability and mental abilities are measured by comparing a person's performance against the criterion of correctness" (p. 503). Alternatively, the trait approach to EI sees its outward expression relating more to an individual's personality than specific cognitive ability (Megreya, 2013). In other words, this model brings together those personality attributes related to emotions that embody "the affective dimensions of personality" (Pesce et al., 2014, p. 1). Bar-On states it is an "array of non-cognitive capabilities, competencies, and skill that influence one's ability to succeed in coping with environmental demands and pressures" (Megreya, 2013, pp. 58–59).

Mixed approaches to EI combine both the intelligence or cognitive aspects of the ability model with the personality characteristics of the trait model. This mixed approach operationalizes as "interrelated competencies, skills, abilities, personal qualities and personality traits" (Cherry et al., 2014, p. 471). EI is both separate from someone's proclivity to experience a particular emotion, as well as how acutely each emotion is felt. It is about how an individual allows their emotion to inform their cognition and how emotion is managed cognitively. These mixed models also look at attitudes, motivation, and other non-cognitive characteristics (Van Zyl & de Bruin, 2012). In addition, through inter-battery factor analysis, studies demonstrated that the mixed model of EI shows an

increase in validity over personality alone, which reinforces the two theories are distinct (Van Zyl & de Bruin, 2012).

Within each of these model types falls multiple theorists. However, as mentioned above, this literature review explores the three most relevant approaches, and ultimately rests upon one. The review of these three begins with Goleman, who is arguably responsible for the recent popularization of emotional intelligence through the book *Emotional Intelligence: Why It Can Matter More than IQ* (1995) (Collins, 2013; Gliebe, 2012, 2012b; Kumar & Muniandy, 2012; Meyer & Jones, 2012). This is followed by a look at the seminal work of Mayer and Salovey (Cherry et al, 2014; Cherry et al., 2012; Gliebe, 2012; Goroshit & Hen, 2012; Han & Johnson, 2012; Kruger & Bliignaut, 2013; Lindsey & Rice, 2015; Lindsey, 2014; Nasir & Munaf, 2011; Sai & Wei Lin, 2011; Senior et al., 2012; and Sierra et al., 2013). Finally, it ends with a review and integration of research based in the work of Bar-On, upon which this study relied (Behnke & Greenan, 2011; Berenson et al., 2008; Fuentes et al., 2014; Ghajarzadeh & Mohammadifar, 2013; Larin et al., 2014; Megreya, 2013; Monselise et al., 2013; Parker et al., 2005; Pesce et al., 2014; Sparkman et al., 2012; Yüksel & Geban, 2014; and Zabihi & Dabaghi, 2013).

Goleman

Goleman's (1995) book *Emotional Intelligence: Why It Can Matter More than IQ* was not the first work published on the subject by any means. However, inspired by Goleman's review of Mayer and Salovey's (1990) article, through the positioning of Goleman's book and his experience with the *New York Times* as a science reporter,

Goleman's legitimacy carried into the mainstream what had previously been the work of academia (Goleman, 1995). Goleman opens his text with an Aristotelian quote that embodies the importance of EI within the context of everyday life, and within the framework of business and corporations, which is where Goleman's work landed most effectively:

> "Anyone can become angry - that is easy. But to be angry with the right person, to the right degree, at the right time, for the right purpose, and in the right way - that is not easy." (Aristotle as cited by Goleman, 1995, p. xix)

Goleman's framework is a mixed model approach as described above. Bar-On (2006) summarized Goleman's work as "a wide array of competencies and skills that drive managerial performance, measured by multi-rater assessment" (p. 14). Goleman does not strictly define an approach within that text, however it does present five broad categories through which children and adults may increase their effective EI (Goleman, 1995; and Kumar & Muniandy, 2012). The first, *emotional self-awareness*, addresses an individual's ability to see and understand their own emotions and their root sources. This section also includes the distinction between emotion and action. The next category is *managing emotions*, which could be considered self-regulation. This area encourages the ability to control anger and frustration through executive function and cognitive awareness of the distinction between emotion and action (Goleman, 1995). Its practice could lead to a decrease in emotional outbursts and an increased positive outlook. Goleman calls the third *harnessing emotions productively*, which others refer to as motivation (Kumar & Muniandy, 2012). This category encompasses how an individual

improves personal and professional responsibility through increasing their executive functions, staying more focused, and reducing impulsivity. Fourth is an individual's ability to sense or understand emotions in others, also considered *empathy* (Goleman, 1995). This connection supports understanding another's perspective through increasing the ability to listen and stay aware of their emotions. The final section, *handling relationships*, is a culmination of the prior four. Through self-awareness, the ability to manage emotions, self-motivate, and have empathy, an individual may demonstrate increased consideration, cooperation, support, and understanding toward others while simultaneously being able to better and more appropriately hold their own boundaries and communicate in balanced ways that support conflict resolution and consensus building with others (Goleman, 1995).

Goleman's model is operationalized through the Emotional and Social Competence Intelligence (ESCI) instrument (Lindsey, 2014). This self-report survey includes both social (interpersonal relationships) and personal skills (self-management). It is divided into four clusters and is primarily used as a business development and managerial tool. There are four sections that encompass the above five elements: self-awareness, self-management, social awareness, and relationship management (Lindsey, 2014). The first, third, and fourth sections of the instrument align with the first, fourth, and fifth categories listed above. The second and third categories above (i.e., managing emotions and harnessing emotions productively) are combined into the second section (self-management) of the instrument.

Salovey and Mayer

Salovey and Mayer's (1990) approach to emotional intelligence belongs in the category of ability-trait models (Bar-On, 2006; Grubb III & McDaniel, 2007; Sierra et al., 2013). In their collection of key readings, Salovey, Brackett, and Mayer (2004) state that EI is:

> the ability to perceive accurately, appraise and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge, and the ability to regulate emotions to promote emotional and intellectual growth (p. 35)

They intended their model to represent an individual's capacity to regulate both their own and another's feelings, while being able to distinguish between the two in order to manage their own actions (Salovey & Mayer, 1990, p. 189). Bar-On (2006) echoed this of Salovey and Mayer, indicating they feel it is "the ability to perceive, understand, manage and use emotions to facilitate thinking" (p. 14). This model is one geared toward the social integration of EI (Kruger & Blignaut, 2013, p. 100). It is a construct of mental ability that may be a more thorough method for testing and interpreting EI (Sierra et al., 2013).

Salovey and Mayer's (1990) model of emotional intelligence is divided into four branches (Goroshit & Hen, 2012; Krueger & Blignaut, 2013; Lindsey, 2014; and Sierra et al., 2013) that can be grouped into experiential and strategic areas (Lindsey, 2014). The ability to perceive emotions as well as the ability to use emotions belongs to the experimental group, while the ability to understand emotions and the ability to manage

them belong to the strategic group. Each of these four areas operates in relationship to both the self and others (Goroshit & Hen, 2012), and together along a continuum from psychological processes that are fundamental, to those that are higher-level (Salovey et al., 2004). The instrument used to measure EI with this model is the Mayer-Salovey-Caruso Emotional Intelligence Test (MSCEIT), which is a problem based measure that can be scored by general consensus or by expert consensus (Nicholls et al., 2012).

Bar-On

Bar-On established the last model of ESI reviewed in this section, which was also the model used for this study. Bar-On's (2006) model is a mixed approach that balances the connected aspects of social skills, emotional skills, and their associated aptitudes that influence smart decision making and action taking (Zabihi & Dabaghi, 2013). Bar-On's approach is one that brings together the "emotional, personal, and social dimensions of general intelligence" (Grubb & McDaniel, 2007), with the non–cognitive nature of the skills that support people with handling the stresses of their daily lives (Cherry et al., 2012). Bar-On states that:

> "to be emotionally and socially intelligent is to effectively understand and express oneself, to understand and relate well with others, and to successfully cope with daily demands, challenges and pressures … ultimately, being emotionally and socially intelligent means to effectively manage personal, social and environmental change by realistically and flexibly coping with the immediate situation, solving problems, and making decisions. To do this, we need to manage

emotions so they work for us and not against us, and we need to be sufficiently optimistic, positive and self-motivated" (p. 14).

It is because of Bar-On's integration and recognition of both the emotional and social aspects that he coined the term ESI. Even though some have found that the short version of Bar-On's EQI (EQ-i:S) demonstrated some similarity to the Big Five personality traits (Grubb & McDaniel, 2007), Bar-On (2006) found that this model shows the least degree of similarity with cognitive tests, and likely no more than a 15% overlap with personality tests. This indicates that Bar-On's approach is distinct from both traditional ideas of cognition, as well as established approaches to defining personality. ESI as created by Bar-On is a combination of social and emotional skills that influence intelligence and action. Bar-On divided these into five broad areas of competency that are more flexible and adaptable than personality traits alone. These five broad areas were originally intrapersonal, interpersonal, stress management, adaptability, and general mood. In the revised version of the model, these five became self-perception, interpersonal, stress management, decision making, and self-expression (MHS, 2011).

Each of the broad areas is divided into a series of sub-categories or scales. This overall structure is referred to as the "1, 5, 15" model (MHS, 2011). In other words, there is the overall ESI composite score, the five composite scales, and the 15 subscales. The overall ESI composite score is a one-shot view of overall ability and ranking. The five composite factors allow a deeper, but more general look at how a respondent sees themselves, and how that perspective might manifest in the world. The 15 sub–scales

give a more detailed look at potential that can be utilized by professionals, coaches, and others to that provide a look into the respondent's functioning and well-being.

Self-perception centers on an individual's perspective on their inner emotional landscape. These help an individual to know themselves and their feelings and to present them in a healthy and constructive way. In other words, it measures how someone's view of their own ability to finish what they start, and how emotions affect what they think and do, helps them to reach the goals most pertinent to themselves (MHS, 2011). Within this area there are three sub-categories. *Self-regard* describes how exactly an individual can not only see and comprehend themselves, but can also accept themselves for who they are. The second, *emotional self-awareness*, describes how well someone can recognize and grasp their own emotions. The final sub–category is *self-actualization*, which indicates the extent to which a person sets and pursues their goals in an effort to meet fully their potential.

Self-expression is related to self-perception and looks at how the subject's internal landscape is manifested in the outside world (MHS, 2011). The first subscale is *emotional expression*. This measures the ability to share one's feelings through words and actions in a way that another comprehends and feels the true intention. *Assertiveness* is the second subscale. It measures the extent to which someone can express their feelings and ideas in a way that is satisfactory to others, while holding personal boundaries. *Independence* is the final subscale, which measures the amount to which someone is free from codependency with others and can rely on themselves as needed.

Moving external to the individual, the interpersonal category seeks to describe the level of one's social attentiveness and relationship building. It is divided into three sub-categories. *Empathy*, similar to emotional self-awareness, although instead of self it describes how much someone perceives and comprehends other's emotions. This is followed by *social responsibility*, which characterizes the extent to which an individual connects with their social group in a cooperative and supportive manner. The final sub-category is *interpersonal relationships*, which measures how well someone consociates with others in a way that is gratifying for everyone involved (MHS, 2011).

Maintaining that balance while remaining flexible through inevitable change is the part of the fourth major category, decision making (MHS, 2011). The first in this set is *problem solving*, which examines how well someone can resolve internal and interpersonal dilemmas. The second, *reality-testing*, describes the ability to measure one's feelings and thoughts with reality in an unbiased manner. The final, *impulse control*, describes how well someone can productively and adequately balance their immediate desires with their other personal needs.

The final category, stress-management, is the degree to which someone can balance and govern their emotions when faced with change and loss of control. This is divided into three subscales: flexibility, stress tolerance, and optimism. *Flexibility* determines to what extent an individual can appropriately change their thoughts and emotions in response to new conditions. *Stress tolerance* looks at the respondent's ability to believe they can positively affect challenging situations through their own behavior.

The final is *optimism*, which simply put, is seeing life as inherently good and uplifting throughout many circumstances.

Bar-On's (2006) ESI theory was the foundational construct of this study for reasons related to prior related research, as well as being the basis of the instrument associated with his work. Regarding related research, first, his division of the construct into broad categories distinguished by multiple subscales allows for a deeper view of the nuance of expression between individuals' ESI and the environment under study. As will be demonstrated below, in many cases, when a significant correlation cannot be drawn between the broad categories, explanation and enlightenment is found within the combination of sub-categories (Pope et al., 2012; Sparkman et al., 2012; Yüksel & Geban, 2014; and Zabihi & Dabaghi, 2013). Second, his theory of ESI has been used successfully in studies surrounding nursing and healthcare (Cherry et al., 2014; Cherry et al., 2012; and Larin et al., 2014). While a more structured and regulated environment, it is very similar to that being studied here. In addition, many studies examining the relationship between ESI and academic achievement or progress (Maree et al., 2013; Parker et al., 2005; and Yüksel & Geban, 2014), used Bar-On's foundation. Fourth, while not its original focus like the work of Goleman (1995), ESI has been applied to the workplace to determine and predict potential for success (Bar-On, 2006). Across six studies seeking to predict job performance, this model explained 30% of the variance (p. 20). Further studies demonstrated that this mixed-model approach predicted performance better than the ability based models (p. 21). According to Lindsey et al. (2014), the most effective factors of ESI related to job performance were self-acceptance, empathy, self-

management of emotions, maintaining an objective view of situations, and thinking positively (p. 24).

When comparing instruments to measure ESI, the two primary considerations were Bar-On's EQ-i 2.0 and the MSCEIT. From the perspective of validity and reliability, MHS's (2011) EQ:i 2.0 has a more robust construct validity than the MSCEIT. Independently verified through a multitude of studies, the original EQ:i had been validated with a huge number of demographic factors such as language, culture, and age range (Bar-On, 2006). The EQ-i 2.0 has been normed (N = 10,000) across five major world regions in 154 countries (MHS, 2011). From a practical perspective, the self-report nature of the EQ-i 2.0 makes its implementation more realistic than the MSCEIT, which requires individual review of the ability measures (Grubb III & McDaniel, 2007).

As self-report measures are often cited as a threat to validity due to a response bias, the original EQ-i had two built in mechanisms to counteract concerns related with self-reporting. These mechanisms systematically examine results to reduce response bias typically found in self-report measures (Monselise et al., 2013). The first mechanism flags any scores two standard deviations above the mean as concerns (Grubb III & McDaniel, 2007). The second, the Positive Impression Scale include items that "are examples of qualities or descriptions of behavior that one might like to be representative of oneself but are probably too positive to be realistic" (p. 47). These items are spread throughout the instrument and are used to encourage someone who is trying to inflate their responses to reveal themselves through their scores. The EQ-i 2.0 his five indicators

of validity (a) time to completion, (b) inconsistency index (IncX), (c) positive and negative impression indexes, (d) Item 133, and (e) omitted items.

ESI in Healthcare

As this study was focused on the development and application of ESI within holistic healthcare education and practice, in this section I sought to draw the connection between these two areas. However, since there was exceptionally little research focused on this intersection, yet there is a significant amount focused on traditional healthcare, doctors, and nurses, I choose to review some of that related literature. Each approach to the health and wellness of an individual (i.e., traditional and holistic healthcare) has at its roots in the transformation of clients from a state of imbalance and sickness to integration and health. It is through this space of serving the patient that these differing approaches share a common goal, even if their path toward it is very different.

At a superficial level, ESI is important to doctors and nurses because they are called to evaluate and respond to broad array of their patients' emotional experiences (Cherry et al., 2014). During their regular routine, it is expected these professionals must express and integrate characteristics of ESI in the face of strong emotion from others. They must have compassion and maintain an appropriate patient-doctor relationship through regulating their own emotions while confronted with patients' misdirected anger (Cherry et al., 2014). This is equally true of holistic healthcare practitioners who may experience even deeper emotions in their clients while processing them through coaching or hypnotherapy sessions. ESI has been found to predict 66% of success in healthcare (Collins, 2013), and that "the importance of EI may, it could be argued, be stronger for

professionals whose everyday work is highly emotionally charged, and particularly in contexts that involve higher levels of 'emotional labour'" (Cherry et al., 2014, p. 471).

From an educational perspective, there is also concern that medical and nursing students are not receiving the training they may need in ESI to properly care for and sustain necessary relationships with their patients. Current studies on the development of ESI within healthcare students have thus far been inconclusive. Some found different ESI profiles between first and second year students, and third year students with some commonalities between them (Collins, 2013). However, while statistically insignificant, there was a counterintuitive drop in students' ESI scores from the beginning to the end of their programs. Alternatively, others found that, while small, students' ESI can be developed or enhanced throughout the course of a program by "learning to perceive, appraise and express emotions, access and generate emotions, and regulate and understand them" in themselves and others (Cherry et al., 2014, p. 472). That study recognized that the significance of students' development could be related to their existing status as higher academic achievers at the time of enrollment. Others hypothesized a small increase in students' ESI may be due to a higher incoming level of ESI as their choice of career inherently includes a certain amount of empathy, caring, and understanding of others (Larin et al., 2014). At the institution understudy, the latter concern may apply to the students more than the former.

Developing ESI through Training & Education

While discussed briefly above in relationship to ESI and healthcare, in this section I review the potential to develop ESI in general. Bar-On (2006) clearly felt that ESI can

be developed in a school setting, but believed it can also be enhanced in the workplace and clinical settings. Recent research indicated that the elements of this ESI model can be taught at many levels and learned by students. A significant amount of research across multiple disciplines demonstrated ESI can be improved but also develops with age (Berenson et al., 2008; Cherry et al., 2014; Cherry et al., 2012; Collins, 2013; Fuentes et al, 2014; Gliebe, 2012b; Goroshit & Hen, 2012; Maree et al., 2013; and Ning et al, 2012).

Prior to the development of the EQ-i 2.0 (MHS, 2011), research found that individuals can be trained in ESI through curriculum focused on the topic (Berenson et al., 2008). More recent articles stated generally that ESI is something that can be enhanced (Fuentes, et al., 2014; Lindsey & Rice, 2015), and that it can be developed "through practices and therapeutic intervention" (Maree et al., 2013, pp. 5–7). Others find that focused educational interventions can influence development of ESI in female medical students, as long as they take place within a shortened timeframe, and occur closer to the end of their education (Cherry et al., 2012). This was relevant to the current study as approximately 88% of the student population is female. Furthermore, later studies revealed that ESI can be developed and enhanced in medical students by curriculum that teaches them "to perceive, appraise and express emotions, access and generate emotions, and regulate and understand them," and that training in these areas ought to be focused on the self as well as others (Cherry et al., 2014, p. 472). However, when studying the development of ESI, it was important to examine students existing experience and emotional competence as it could skew the view of development (Cherry et al., 2014).

Moving outside of healthcare, studies focused on both social work and education students found significant changes in the experimental group's ESI and none in the control group (Goroshit & Hen, 2012). However, they noted that that changes in ESI were more stable with education students but had a larger effect size for social work students. The propensity for social work students to work more closely and intensely with individuals recovering to trauma and processing personal transformations may have contributed to their proclivity to develop ESI. Reports on a study at the Weatherhead School of Management at Case Western Reserve University demonstrated ESI can be increased in a sustainable way (Lindsey, 2014).

Methods for developing ESI were as varied as studies seeking to determine if its development is possible. However, there did not seem to be enough support for any specific methodology to be deemed the most successful (Goroshit & Hen, 2012). Even so, research did indicate ESI is less likely to be developed with solely intellectual approaches, and benefited appreciably from an experiential component. Although cautionary due to the quasi-experimental nature of the study, some students benefitted from ESI training in the later part of their education (Cherry et al., 2012). Others that took ESI training their first semester found it influenced their overall social and emotional development and resulted in an increased GPA four semesters after the treatment (Ning et al., 2012). Finally, a team-based activity approach to teaching ESI was also effective (Lindsey, 2014), reinforcing the idea that developing ESI is more experiential than intellectual (Goroshit & Hen, 2012). Again, this spoke to the educational approaches and characteristics of the site understudy.

Some researchers developed more specific models for developing individual's ESI. One such model contained five strategies aimed at enhancing students' ESI (Gliebe, 2012b). It began by training appropriate faculty members to ensure they had personal recognition of ESI competences. This was followed by including in the relevant courses information about ESI and its development. The third stage was to present the training to incoming freshmen. As the school in which this model was developed is a religious institution, this presentation included specific reference to spirituality and emotions in that faith's canonical work. Finally, the school trained student counselors in ESI competencies, so they might better support the sustainability of the students' ESI training (Gliebe, 2012b). Alternatively, ESI and characteristics of caring and morality can be developed through programs that have outcomes related to personal development and a patient-centric focus, even if there are not any specifically designed interventions (Larin et al., 2014). This was especially relevant to the current study and the target institution, as it similarly included many classes on personal growth and development, but very little specifically designed to address characteristics of ESI.

ESI and Academic Achievement

Related to the potential for ESI to be developed in students is the relationship of those enhanced characteristics to students' academic achievement and progress. My interest in that relationship is to help define the import of making additional efforts to enhance ESI. Focused attention in this area could increase student success in school as well as on the job. Research found that ESI improvements in students can result in improved school retention rates (Collins, 2013). Bar-On (2006) stated clearly that several

studies with significant sample sizes in multiple countries (i.e., South Africa, Canada, and the United States) confirm that his model of ESI can "identify and predict who will perform well at school and who will not" (p. 19). Others confirmed that ESI measures have been a more trustworthy determinant of academic achievement than traditional IQ, and that increasing students' ESI may similarly improve scholarly pursuit, approaches to health, and job success (Nasir & Munaf, 2011). These same confirmations of ESI's relationship to academic performance appear in several reviews of existing research and literature (Fayombo, 2012; and Ghajarzadeh & Mohammadifar, 2013). Of course, there was some opposing research that indicates some variance in the direct correlation between ESI and academic achievement (Sierra et al., 2013). These found instead a mediating relationship between the two that represent small, although significant effect sizes.

Looking more specifically into higher education, ESI within college curriculum has led to success. Studies showed that undergraduate students demonstrate a significant relationship between ESI and academic success (Collins, 2013). This is a phenomenon that is seen in multiple cultures as well. For example, both American and Chinese students with a lower GPA had an EI level that was significantly less than those students with a medium to high GPA (Margavio et al., 2012). In addition, when looking at the transition from high school to college, students more inclined to be academically successful have increased values for many ESI competencies (Parker et al., 2005). ESI has even been shown to increase the efficacy of academic advisors, helping them to better identify and support at-risk students earlier in their academic career, which may lead to

increased retention and satisfactory academic progress (Pope et al., 2012). ESI has also been found to differ between age and gender (Margavio et al., 2012), and age and enrollment status (e.g., graduate, enrolled, dropped) when controlled for EIS subscales (i.e., empathy, social responsibility, flexibility, and impulse control; Sparkman et al., 2012). Research indicated that the relationship between ESI and performance "is not consistent and depends on the performance indicator considered" (Sierra et al., 2013, pp.405, 407). In light of these, in the next section I looked more deeply at some of the demographic and factor specific differences found in ESI research.

ESI and Individual Characteristics

Correlations between specific demographic factors and subscales of the EQ-i came to light through the research already completed on Bar-On's theory and the EQ-i instrument. While some are relevant to the context of this study, others provided further clarification of the character of ESI. Discussion of gender differences found through studies, as well as the differences between subscales of the EQ-i, come last in this section as they both warrant a deeper discussion. In this review, I first explored a collection of demographic factors found in some way to be related to ESI.

An aspect of interest to higher education enrollment coordinators is the correlation between ESI and academic success for incoming adolescents. Similar to the studies mentioned above regarding higher education, some also found a significant and highly positive correlation between ESI and adolescent success (Nasir & Munaf, 2011). Adolescents that had parents who recognized and supported their emotional needs were more likely to be happy, achieve more in math and language, and overall did better in

school and had fewer problems (Maree et al., 2013). While not a direct link between ESI and adolescent academic achievement, research did support the notion that a higher ESI score related to higher self-confidence, which generally translated to higher achievement. Along these same lines, ESI did affect students' academic success and persistence as they matriculated from secondary to postsecondary education, and to their professional career (Fayombo, 2012). This seemed especially true in first-generation, minority, and non–traditional students.

Age as a factor of ESI was studied in conjunction with other research questions because of its ubiquitous presence in the collection of demographic data. Some research indicated there was no relationship between age and ESI (Ghajarzadeh & Mohammadifar, 2013), while others determined one exists (Kumar & Muniandy, 2012). Even Bar-On (2006) weighed in on the argument, indicating that ESI increases with age more than traditional measures of intelligence. Even so, despite its pervasive presence, agreement on the relationship between age and ESI remains elusive.

Another common research question regarding ESI was the difference between genders. This was frequently posited as which gender is more emotionally intelligent, and while it anecdotally gave credence to age-old societal questions, it may also hold keys to understanding differences in performance between genders. Unfortunately, similar to age, there has been no consensus as to which half of the human race better manages emotions, or even how gender impacts academic achievement. Many studies found that, regardless of the gender, ESI is a better predictor of academic achievement than gender alone (Fayombo, 2012). However, some found that there is no significant

relationship between ESI levels and academic achievement until the results are controlled for gender (Pope et al., 2012). Once controlled, ESI subscales predicted academic achievement more than overall scores. Yet, still others determined that female adolescent academic grades were higher than males, but there was no significant difference in ESI levels (Nasir & Munaf, 2012). Some found no significant difference at all in the general ESI results of males and females (Behnke & Greenan, 2011; and Kumar & Muniandy, 2012). Similarly, Bar-On (2006) indicated there was no difference between gender and ESI scores in general. However, Bar-On did state that some significant difference exists on some subscales (p. 15). Specifically:

> women are more aware of emotions, demonstrate more empathy, relate better interpersonally and are more socially responsible than men. On the other hand, men appear to have better self-regard, are more self-reliant, cope better with stress, are more flexible, solve problems better, and are more optimistic than women. (p. 15)

There were additional studies that supported results showing that women seem to have a higher capacity for ESI (Sierra, et al., 2013), especially in EQ-i sub–scales. Moreover, while there were many subscales that demonstrated no significant difference for gender, in those that did, women consistently had higher scores than men (Sierra et al., 2013). As an outlier, one study reviewed indicated that women demonstrated higher than men in some subscales (i.e., interpersonal and stress management), as well as on overall ESI levels (Parker et al., 2005).

EQ-i Subscales

The new EQ-i 2.0 (MHS, 2011) consists of five general scales that break into 15 separate subscales. The breakdown is as follows:

- Self-perception (subscales: self-regard, emotional self-awareness, and self-actualization);
- Interpersonal (subscales: empathy, social responsibility, and interpersonal relationship);
- Stress management (subscales: stress tolerance, flexibility, and optimism);
- Decision making (subscales: reality-testing, impulse control, and problem-solving); and
- Self-expression (subscales: independence, assertiveness, and emotional expression)

What follows is a synthesis of only some of the findings from current research regarding the relationship between EQ-i 2.0 subscales, academic achievement, and other dependent variables. This discussion is important to the current study as it sets a framework of possible expectation regarding the ESI levels of holistic healthcare students in general and within specific subscales. Studies that did not implement the EQ-i 2.0 are still discussed here to create a more complete awareness of how similar individual factors form other instruments influence EI.

Using the Emotional Competence Inventory University Edition, which is a mixed-model, self-report measure similar to the EQ-i (Pope et al., 2012), significance between its broad scales and academic achievement was not strong. However, researchers

discovered significant relationships between multiple subscales and academic achievement. In this case, the study's focus was on relating academic achievement through students' average percentage mark (APM) to results from the instrument. Significant positive relationships were found with conscientiousness, adaptability, empathy, organizational awareness, and building bonds. However, for the subscales of self-awareness, self-management, and relationship management, there were no significant correlations found (Pope et al., 2012).

Others found that student achievement on a scale used to measure how well someone feels they can communicate (self-perceived communication competence) aligned with subscales of the EQ-i, as well as overall EQ scores (Zabihi & Dabaghi, 2013). In these studies, achievement in communication competence had a significantly positive correlation with emotional self-awareness, self-regard, self-actualization, empathy, interpersonal relationships, social responsibility, problem solving, stress tolerance, impulse control, happiness, and optimism. Results were not correlated with assertiveness, independence, reality testing, and flexibility. In the areas of academic achievement in physics, chemistry, biology, and math in vocational high school students, a study using Bar-On's EQ-i found only a weak relationship to the adaptability scale, and no relationship to the other major scales (Yüksel & Geban, 2014). However, when compared to subscales, significant relationships became evident. Self-actualization and social responsibility were significantly related to all four sciences. Problem solving was related to mathematics achievement, while impulse control and stress tolerance were correlated to biology. However, impulse control was positively correlated while stress

tolerance was negatively correlated. Interestingly, happiness and optimism were not related with achievement in any of the four sciences (p. 166).

In a study of the non–cognitive predictors of college success, students' high school GPA, composite American College Testing (ACT) scores, and college enrollment status were related to their cumulative GPA through the subscales of the EQ-i (Sparkman et al., 2012). It was interesting to note they discovered that independence, self-actualization, social responsibility, interpersonal relationships, and happiness significantly predicted students' cumulative GPA as long as 5 years after taking the EQ-i during freshman orientation seminars. Self-actualization, social responsibility, and happiness had a positive relationship to cumulative GPA, with social responsibility having the strongest relationship, while happiness had the weakest. This could support other finding of no relationship to GPA for the happiness subscale (Yüksel & Geban's, 2014). Independence and interpersonal relationships had a negative relationship. Of import to academic advisors, flexibility and impulse control were negatively correlated with student retention. In other contexts, the happiness sub–scale had been found to be the most significant predictor of overall ESI, even more so than gender (Ghajarzadeh & Mohammadifar, 2013).

Using the Barchard Emotional Intelligence Model, a mixed model approach with seven components, EI was studied as a predictor of academic success in Barbados (Fayombo, 2012). While this model was not divided into as many subscales as the EQ-i, the findings reinforced the notion that a multi–faceted approach to studying EI is more revealing than a single score. In this case, "attending to emotion" and "positive

expressivity" were positively correlated with academic achievement. As one would expect, negative expressivity was negatively correlated with achievement. Emotion-based decision-making, responsive distress, responsive joy, and empathic concern were not a part of the focus of this study, so their relationship to academic achievement is unknown. Other studies have examined various aspects of ESI in relationship to success and found a variety of results that all seem to point to subscales as better predictors of achievement.

ESI in Online Education

In this last section, I looked at research integrating ESI theories with online education. As one of the intentions of this study was to compare the development of ESI between online and traditional education, this section creates a foundation for the results from the institution under study. Some of this foundation was built by studies who found through the EQ-i that ESI was a predictor of GPA and success within the online environment (Berenson, Boyles, and Weaver, 2008). Some explored how learners expressed their emotions through conversation in online classes and how that changes over time (Zembylas, 2008). These found that positive emotions (joy, enthusiasm, and excitement) and negative emotions (fear, anxiety, alienation, stress, and guilt) were present in the online environment. In addition, they found that the ways in which these emotions were expressed and mix created an emotional environment that affected students' learning during the arc of the course. They called for further research into the interaction between emotion and online learning for adults in particular, which the current study will provide.

Others looked specifically at the interaction between adult learners' ESI and how they felt toward different online learning materials (Behnke & Greenan, 2011). Through this work, it was believed that a student's ESI, as characterized by Bar-On's (2006) approach and the five areas within that framework (i.e., self-perception, interpersonal, stress management, decision making, and self-expression), affected student performance in online learning because of the number of activities that required "a high degree of self-motivation, self-direction, and independent study" (p. 63). What they discovered through utilizing the EQ-i, is that students' emotions and ESI influenced their motivation, while the instructional design elements impacted their overall attitude and engagement. Of import to the current study, it seems that students who had low to average levels of ESI were more successful with structured learning elements, while students with a higher ESI preferred instruction to be nonlinear and interactive.

Social connections and ESI has also been studied in the online environment. In a study exploring the relationship between the online learning interactions of master's students, their EI, and ability to socially bond, researchers proposed a new conceptual framework for the connection between ESI, social bond, and online interaction. This was motivated by an awareness that emotions and cognitive learning are inherently tied together, and that EI "has been discussed as one of the important intelligences and competencies to promote and regulate personal intellectual growth and social relational growth" (p. 78). Using the MSCEIT, research revealed that students with higher skills to see emotions in others did bond more to their fellow online students. However, the other categories in the MSCEIT were not significantly related. Researchers hypothesized that

the difficulty in sharing one's emotion in the online environment was reduced and may limit the influence of EI and social bonding within the online environment.

A similar thread sought to discover if students demonstrated emotions or social intelligence in online and blended classrooms through examining the number of times and the ways in which students laughed, smiled, or chuckled (Meyer & Jones, 2012). Those numbers were compared to the amount of similar expressions of emotional or social intelligence in online activities that were social as opposed to academic. The findings indicated that expressions of emotion and social intelligence appeared "sometimes." However, they appeared more in classroom environments than in non-class related activities. It is relevant to note that proof students are experiencing emotions in the online learning environment was inconclusive. This revealed a need to research more thoroughly whether the potential exists for social intelligence to be learned or enhanced in an online environment. I sought to answer this question for the environment of the target institution.

Finally, more recent studies found that online students may experience an enhancement of their ESI through simply participating in classes (Lindsey & Rice, 2015; Lindsey, 2014). In a cross-sectional study of interpersonal skills between online and traditional undergraduate environments, these studies compared students who had taken no online courses with those that have taken between one and four, and those that have taken five or more. First, the authors tested and found no significant difference between the ESI of online and traditional students. However, when testing for students that had taken differing numbers of online classes, they found a significant difference. Those

students with no online classes had significantly lower levels of ESI than students with between one and four classes, and again between those who had taken five or more. They hypothesized this may be the result of the opportunities for interaction and the development of interpersonal skills that were present in the online environment but not in on-campus classes. These results presented a need to conduct discipline specific research that shows how to create the most effective online teaching environment to develop ESI and interpersonal skills to meet the demands of the workplace.

Alternative Healthcare

Current approaches to healthcare in the western world generally focus on an allopathic, also called conventional or contemporary, approach to healing. Allopathy focuses on the treatment of symptoms through pharmacological and surgical interventions within the individual body system affected. Medical doctors (MD) typically study this approach to medicine as either a generalist or a specialist within a specific system of the body (e.g., endocrinologist, internal medicine, gastroenterologist, etc.). In the 19th century, after the civil-war, Andrew Taylor (A.T.) Still became concerned over the increasing use of toxic medications to treat the infirmed (Indiana University, 2015) and created the osteopathic approach to medicine. Osteopathy was originally intended to create a more preventative and integrated approach to medicine, however, osteopathic doctors (DO) today practice medicine in nearly identical ways as MDs.

In the past two decades, there has been a resurgence of interest in more traditional and holistic approaches to health and wellness (Litchy, 2011; Jafari et al., 2014; Pérard et

al., 2015; and Woodward et al., 2012). In this context, "traditional" refers to medicine as practiced in cultures other than the western world through methods of treatment that integrate all of the body's systems and are not merely symptomatic. Holistic approaches to medicine are patient-centric and seek to restore harmony and balance in all aspects of the person (Pérard et al., 2015). In many approaches, this also includes not only a recognition of a spiritual component to human existence, but also an energetic one that may be manipulated to engender healing through harmony in the body. These systems and treatments include traditional Iranian medicine, traditional Chinese medicine, ayurveda, reiki, hypnotherapy, acupuncture, yoga, Holistic nutrition, polarity, meditation, massage, homeopathy, aromatherapy, herbalism, and many others (Jafari, et al., 2014; Marshall et al., 2011; Pérard et al., 2015; and Woodward, et al., 2012). To help guide the efficacy of this resurgence, the U.S. Department of Health and Human Services created the National Center for Complementary and Integrative Health (NCCIH). The goal of the NCCIH is to "conduct and support research and provide information about complementary health products and practices" (National Center for Complementary and Integrative Health , 2015).

Complementary and alternative medicine (CAM) and integrative medicine can also combine within naturopathic doctors' (ND) six guiding principles: the healing power of nature, identify and treat the causes, first do no harm, doctor as teacher, treat the whole person, and prevention (Litchy, 2011). This connection between the conventional and traditional medicines is also expressed as personalized medicine (Jafari et al., 2014). In

each case, the intention combines the holistic (general to specific) approach with globally supported contemporary views (specific to general) to better treat and prevent disease.

Individuals seek complementary and alternative medicine for a variety of illnesses and pain management. Patients with chronic conditions tend to seek options to manage their own care through alternative means more than others (Woodward et al., 2012). Some of these conditions include: cancer (Pérard et al., 2015), chronic fatigue syndrome (Marshall et al., 2011), and bowel disorders (Woodward et al., 2012). Many patients seek out CAM because of belief systems, exasperation with the ineffectiveness of conventional medicine, worry about side-effects of conventional medicine, and inattentive care from practitioners (Marshall et al., 2011; and Woodward et al., 2012). Patients are seeking "safe, personalized, cost effective, natural, and potentially drugless health care" that can help "effectively address chronic disease" (Litchy, 2011).

This demand created a need for practitioners at the physician level that can integrate CAM. NDs who are trained for this have grown in numbers by 300% since the late 1990s (Litchy, 2011). In addition, there is a need for entrepreneurial practitioners outside of the established medical system. In the United States, O*Net (http://www.onetonline.org) tracks and projects the growth of all industries. A search of specialties related to integrated medicine, complementary and alternative medicine, and personalized medicine show projected growth between now and 2020. In the area of Health Diagnosing and Treating Practitioners, O*Net expects a growth of between 9% and 13% with a projected 17,700 job openings (O*Net Online, 2015a, Wage and Employment Section). These include positions such as acupuncturists and naturopathic

physicians. In the area of Nurse Midwives, a much higher than average growth of 14% is expected (O*Net Online, 2015b, Wage & Employment Trends Section), while the area of Healthcare Practitioner and Technical Workers (e.g., hypnotherapists, energy workers, massage therapists, and others) is expected to grow between 15% and 21% with an increase in 22,800 job openings (O*Net Online, 2015c, Wage and Employment Section).

While clear to most that naturopathic physicians require training comparable to a medical doctor's, people may feel that some of the more esoteric healing methods (e.g., reiki, hypnotherapy, and life coaching) come naturally to those practitioners. However, being a competent hypnotherapist, reiki practitioner, or life coach requires training to ensure safe and successful treatment. The wise patient will seek out practitioners with credible training credentials, just as they would seek out a naturopathic or medical doctor that has appropriate training and licensure. Fortunately, there are a growing number of independent teachers, programs, and small colleges that train practitioners in everything from becoming a naturopathic doctor to a yoga teacher.

Alternative Healthcare Training and Education

To fill this need, practitioners must be well-educated and able to combine holistic pathways to health and wellness with those of more contemporary models. One way to receive this training is through a traditional college approach. For example, training to become a ND mimics the structure of allopathic and osteopathic training. It is generally four years in length, but also adds non-conventional options such as those mentioned above (Litchy, 2011). Similar to an MD or OD, these programs also include residential

training of 4 years and 4,100 hours (Litchy, 2011). As of 2011, there were seven accredited ND schools in the United States (Litchy, 2011).

Another pathway for training, instead of becoming an ND, is to become an independent practitioner in one of the many areas of holistic healthcare mentioned above. The most reliable training in these areas takes place on-campus at private, accredited, and focused vocational schools. However, there is an increase in smaller alternative healthcare courses in traditional universities. There are also many private schools that are not accredited that offer individual classes and seminar based training. In addition, there is a wealth of individual training sessions available from practitioners throughout the US seeking to pass along their particular practice. A final, and more recent development is the introduction of alternative healthcare training completed online at the certificate, diploma, and program (e.g., AOS & Bachelors) levels. These programs cover a variety of the modalities previously mentioned and train individuals in remote areas or locations too far from any residential training. Some are fully accredited and vetted, while others are more independent and unregulated. This modality is of most interest to this study.

Transformative Learning

A defining characteristic of the college under study is its focus on transforming students' lives to be in alignment with their hopes and dreams through the practice of holistic healthcare. This broad vision is represented in its core values, mission, and motto, which is "To heal bodies, touch lives, and free souls." As an institution of higher education, the school serves only adult students. The combination of this vision with adult students led to an exploration of Mezirow's (1997) ideas of transformative learning

as a theoretical foundation for the both the education at the institution, as well as a potential link to the development of ESI. In this section, I provide an overview of transformative learning and its integration into education.

Mezirow can be considered the father of transformative learning. According to Mezirow (2003), transformative learning is “the epistemology of how adults learn to think for themselves rather than act upon the assimilated beliefs, values, feelings, and judgments of others” (p. 1). An alternative definition is that it is a "simple transformation of belief or opinion or radical transformation of one's total perspective" (Foote, 2015, p. 84). This approach to adult learning is founded on the reality that humans have a driving need make and comprehend the meanings of their experiences (Mezirow, 1997). It asserts that learning, especially adult learning, is based upon the essence of communication, and that to truly comprehend what someone intends to mean as they communicate one must know and understand the feelings, values, and morality of the communicator (Mezirow, 1998). Mezirow (1998) stated that we need to know where “the person is coming from” (para 21). This leads to one of the formative elements of transformative learning, critical reflection of one’s own (CRSA) and others (CRA) assumptions, which is discussed more fully below.

Transformational learning is about creating a shift in the established frames of reference an individual has created through their life history. Mezirow (1997) viewed these frames of reference as the conscious and unconscious biased perspectives through which people make meaning of their lives. These consist of mental patterns and perspectives created by a combination of one’s “cognitive, conative, and emotional”

pieces that are both unconscious ways of thinking and conscious perspectives of the world (p. 5). Mental patterns are operationalized through one's perspectives and are more lasting, and less flexible and malleable than points of view. The intention of transformative learning is to help someone learn how to become more autonomous in their thinking and life by critically examining and reflecting on their assumptions and values and clearly communicate with others (Mezirow, 1997). In other words, they no longer take their historical frames of reference for granted and instead consciously consider them in each situation to improve their ability to adapt through change. Shifting one's own frame of reference through examining personal points of view is considered subjective reframing, while looking at others' points of view (e.g., books, news, another person) is considered objective reframing. Either way, the intention is to shift the way learners think, not only through considering themselves and their personal beliefs, but also those of their environment. Similar to the goals of the institution understudy, this is especially true as students examine beliefs and cultural systems, such as religion and spirituality, which are routinely accepted as the norm without question (Mezirow, 1998).

The CRSA is foundational to transformative learning (Mezirow, 1998). It is through this mechanism that adult learners begin to understand their pre-existing mental constructs, and the lenses those constructs create, through which they experience the world. This process of critically reflecting on assumptions can be unconscious (implicit) or conscious (explicit). Unconscious choices are those choices that require comparing an action or event to existing and automatic moralities and beliefs about the world. These are events to which one reacts without considering the reasons for the action taken.

Alternatively, conscious reflections are those for which "we bring the process of choice into awareness to examine and assess the reasons for making a choice" (Mezirow, 1998, para 5). This process of critical reflection can create "significant personal and social transformations," which directly represents the mission and vision of the college being studied (para 6).

This critical reflection of assumptions leads to a form of communicative learning that considers the unspoken preconceived ideas about the communicator's and listener's beliefs, values, feelings, intentions, and understanding of truth and authenticity (Mezirow, 1998, 1997). Mezirow (1997) maintained that without this understanding, one can never fully comprehend the meaning or intention of each communication. Furthermore, as communicative learning is based in these deeper understandings of self and others, empirical assessment is not as effective for measuring its presence as demonstrative or observable assessment (Mezirow, 1997).

Transformative Learning in the Classroom

Operationally, Mezirow (1997) looked at transformative learning as having four broad stages. First, the learner unpacks an existing framework or point of view to understand its construction. Next, they create a new framework or point of view. The third stage is a resulting transformation in an adopted point of view. Changing a "habit of mind by becoming aware and critically reflective of our generalized bias in the way we view groups other than our own" is the final stage (p. 7). Later, Mezirow (2003) refined this process within the framework of transforming a belief, creating five stages:

> recognition that an alternative way of understanding may provide new insight into a problem, context awareness of the sources, nature and consequences of the old belief, critical reflection on its supporting assumptions, validating the new belief by an empirical test of the truth of its claims, when feasible, or by a continuing discursive assessment of its justification in order to arrive at a tentative best judgment and, taking action on the validated new belief. (p. 3).

Mezirow (1997) believed transformative learning is about communication and critical analysis. This is about not only personal transformation, but can also be about general learning theory. Within the classroom, it is important for students to identify their personal assumptions and those of others so they can analyze course content, see problems in a new way through the use of imagination, and understand how to take part in appropriate cognitive and metacognitive discourse about the process. Mezirow believed that independent thinking, critical reflection through conversation, and real-life experiences were keys to learning at all levels. Mezirow wrote "learning takes place through discovery and the imaginative use of metaphors to solve and redefine problems" (p. 10).

Motivated by the recognition that students engaging in learning through subjective reframing (i.e. personal transformation) need support, Mezirow (2003) clarified this process for adult learners. Mezirow outlined 10 phases or steps of experience in the epistemology of transformative learning that have become the foundation for the implementation of transformative learning models both on-campus and online. They are:

- a disorienting dilemma;
- self-examination with feelings of fear, anger, guilt or shame;
- a critical assessment of assumptions;
- recognition that one's discontent and the process of transformation are shared;
- exploration of options for new roles, relationships and actions;
- planning a course of action;
- acquiring knowledge and skills for implementing one's plans;
- provisional trying of new roles;
- building competence and self-confidence in new roles and relationships; and
- a reintegration into one's life on the basis of conditions dictated by one's new perspective. (Mezirow, 2003, p. 4)

Transformative Learning and the Institution Under Study

In relationship to the values of the holistic healthcare college understudy, Mezirow's (1998) recognition of the importance of imagination to critical self-reflection of assumptions related in many ways to the institution's focus on using techniques such as vision boards and intuition in many of their classes. Another defining characteristic of this institution was its focus on emotional awareness, belief in oneself, a positive outlook, and the ability to look within to create and reach personal goals. Each of these aligned with Mezirow's belief that an "important non-cognitive factor in transformative learning is the disposition and emotional stamina to believe that one has both the will and the way to reach his or her reflectively redefined goals" (para 30). Mezirow also linked the processes of critical self-reflection of assumptions to their emotions and how they act in

response to them. This not only related to course topics within the school, but also to the characteristics of emotional-social intelligence previously discussed (e.g., empathy, emotional self-awareness, interpersonal relationships, and self-actualization).

Within the context of healthcare, transformative learning has been defined as a process that reflectively integrates past experiences to create new ways to see the world, and more relevantly, see to its needs (Green-Thompson, 2013). This definition highlights the caretaker aspect of healthcare workers that is shared by the institution. One foundational method through which holistic healthcare workers take care of their clients is through coaching them to be more self-empowered. Some believe that transformative learning interacts with empowerment through the changing of points of view, which is a process engendered by the aforementioned deep processes of critical self-reflection of assumptions (Spry & Marchant, 2014). This related to the institution further through its pervasive focus on coaching, not only as a class for its students, but as a requirement for all of its staff. Coaching is a process through which a practitioner or coach works with a client to explore deep seated fears and hopes, discover and set goals, and realize their full potential. As a learning model, coaching is considered transformative rather than transactional (Griffiths, 2005). Research revealed the deep learning that occurs during coaching and links it directly to transformative learning theory. Furthermore, the "active learning and communicative relationship [that] are deemed essential elements with the transformation process" are linked directly to the elements of coaching (p. 22). Seen within the elements of the coaching process, is a direct reflection of Mezirow's (2003) 10 stages of subjective transformation listed above.

As a school focused not only on training the cognitive elements of being a holistic healthcare practitioner, but also on exploring the emotional and spiritual parts of oneself, along with critical self-reflection, its curriculum includes significant amount of experiential learning. Experiential learning has been tied to coaching and all the elements of transformative learning (Griffiths, 2015). Similarly, others asserted that kind of critical thinking must include elements of experiential learning to be effective, that "critical thinking is a whole-grain process" (Fried, 2013, p. 6). Similarly, researchers cited that the introduction of a spiritual component to education increases the potential for learning to be transformative as it releases students from being restricted to only cognitive conversations (Foote, 2015). From an emotional perspective, others confirmed that deep learning, the kind described by transformative learning theory, occurred in students on assignment in the aboriginal outback when faced with a disorienting dilemma as described by Mezirow (Wright & Hodge, 2012). Many of these dilemmas were unpredicted events that motivated transformation, which are the types of experiences common at this institution.

Transformative Learning in Online Education

As part of this study examined the development of ESI within online learning, it is important to understand the current application of transformative learning within that learning modality. Researchers have explored the connection between Mezirow's theory and online learning at many levels and in many circumstances including doctoral (Provident et al., 2015), international (Barraclough & McMahon, 2013), and higher education (Kruger & Blignaut, 2013). Most pertinent to this study are those that

examined how transformative learning interacts with and shows up within online education. This section briefly reviews those elements found relevant by those studies.

As mentioned above, the first element necessary to creating transformative learning was experiencing a disorienting dilemma (Mezirow, 2003). In effort to examine the efficacy of transformative learning to bridge the gap between students in the northern United States with those on the Mexican border, each group of students studied what it meant to live in a border town (Barraclough & McMahon, 2013). The hope of this research was that the difference in perspectives between the two groups would help each transform their thinking. It was the significant difference between their perspectives that was critical for creating the requisite disorienting dilemma. The tension each group felt as they struggled with each other's perspectives on privilege and sacrifice forced them to rethink their existing frames of reference and points of view. From a technology perspective, the researchers found the most effective way to support transformative learning was synchronous and facilitated discussions that allowed each group of students to identify more with the other. Asynchronous conversations were less effective in stimulating transformation.

That research effectively operationalized transformative learning in an online environment through five steps (Barraclough & McMahon, (2013). The first was to integrate the theory and history of intercultural relations through their personal experiences. The second is to bring forth a variety of perspectives for the students to witness. Third, through facilitated dialogue they encouraged students to see the ways in which another person's perspectives and frames of reference are not rigid and

unchangeable, but can be adapted by their environmental conditions (e.g., geographic location, social connections, and family relationships). This transitioned into the students gaining a better understanding of how they created their own identity, which is directly related to the critical self-reflection of assumptions presented by Mezirow (1998). Finally, researchers helped each student see how their focused examination of an issue or topic influenced their own frames of reference (Barraclough & McMahon, 2013).

A program at the doctoral level, created within a clinical Occupational Therapy Doctorate (OTD), was designed to create a shift in the learner so they could intentionally "translate the best available evidence to occupational therapy practices" (Provident, et al., 2015, p. 131). This related directly to the vision of the institution under study. Their OTD program included many aspects of the learning techniques for transformative online learning and could be a model for researching online transformative learning.

One of the most important aspects of a transformative online class is the role of the instructor (Provident et al., 2015). Specifically, it is the instructor who integrates critical reflection into their facilitated discourse that creates an environment more amiable to transformative learning. They do so by supporting the student's development through making space for them move through the CRA and CSRA processes to seek answers. This sets them up for the transformation of their frames of reference and points of view (Mezirow, 1997). Beyond facilitating critical discourse in discussion questions and synchronous interactions, it is important for instructors to create trusting relationships with their students and support them through technical and academic concerns in a way that motivates a deeper look into their own perspectives. In addition, completing

reflective writing assignments that require students to consider their emotions and established moralities surrounding particular topics supports further progress along the steps to transformative learning. Others echo the transformational aspects of reflective journaling for adult learners, emphasizing the importance of using this kind of activity to assist students with governing their emotions and finding appropriate balance in their expression (Kreuger & Blignaut, 2013).

In the study of the OTD program, researchers used qualitative analysis to determine the extent to which students experienced steps in the transformative learning process (Provident et al., 2015). This review discovered that, through the course and instructor characteristics, most students felt a disorienting dilemma. They also verified having adequate opportunity for CRA and CSRA. The authors further attributed the intentional design of their courses to the success of their students' transformations. A series of course assignments and guides helped to move them through the steps of transformative learning. These findings are difficult to generalize beyond the doctoral environment. However, these strategies are portable to similar programs at other levels, especially through "active learning, assignments that directly apply to and allow students to carry out their new roles in their work settings, implementation of a cohort model, and use of critical reflection" (Provident et al., 2015, p. 141). While the institution under study does not offer doctoral level programs, nor is it structured in a cohort model like that setting, their intentional focus on student transformation, link to healthcare, and focus on students' future work settings were similar.

Summary and Conclusion

ESI has roots as far back as Darwin (Bar-On, 2006; Lindsey, 2014; and Sparkman et al., 2012;), and moves through Thorndike's and Wechsler's early ideas of social interaction (Bar-On, 2006; Crowne, 2013; and Lindsey, 2014), and into Gardner's recognition of multiple intelligences, especially interpersonal (Bar-On, 2006; and Lindsey, 2014), before landing on contemporary theorists. The most prominent of which are Salovey and Mayer (1990), Goleman (1995), and Bar-On (2006). Since Goleman's (1995) work, the amount of ESI research within professional, academic, and personal constructs has blossomed. A simple search of multiple databases for full-text, peer-reviewed journal articles with the search term of EI returned over 6,500 entries between 1995 and 2016, while the same search prior to 1995 returned only 382.

Germaine to this study, within the context of adult education aspects of ESI have been linked to healthcare (Cherry et al., 2014; Collins, 2013; and Larin et al., 2014), personal development (Bar-On, 2006; Goleman, 1995), transformative learning (Mezirow, 1998), and academic progress (Bar-On, 2006; Collins, 2013; Fayombo, 2012; Ghajarzadeh & Mohammadifar, 2013; Nasir & Munaf, 2011; Sierra et al., 2013). In addition, studies have demonstrated the potential for ESI levels to be increased through academic interventions in both traditional (Berenson et al., 2008; Cherry et al., 2014; Cherry et al., 2012; Collins, 2013; Fuentes et al, 2014; Gliebe, 2012b; Goroshit & Hen, 2012; Maree et al., 2013; Ning et al., 2012;) and online (Behnke & Greenan, 2011; Berenson et al., 2008; Han & Johnson, 2012; and Lindsey, 2014) environments.

Bar-On's (2006) approach as a mixed model exploring both personal ability and traits was the foundation of this study. Not only because the instrument's extensive validity, reliability, normalization, and self-report bias control (Bar-On, 2006; Grubb III & McDaniel, 2007; MHS, 2011; Monselise et al., 2013), but because of the depth to which it could explore a respondents' sub-scales for relationship to ESI levels (Ghajarzadeh & Mohammadifar, 2013; Maulding & Roberts, 2012; Yüksel & Geban, 2014; Zabihi & Dabaghi, 2013).

Existing research has explored the development of ESI, its relationship to traditional healthcare, interaction with transformative learning, and even its interaction with online education. What was left unknown, and what this study sought to discover, is the convergence of these elements within the context of holistic healthcare education. Finding this intersection has the potential to increase the number of successfully practicing holistic healthcare professionals, which this author believes would provide a much-needed counterbalance to the dominance of a symptomatic and pharmaceutical approach to health and wellness. Similarly, recent research pointed to patients' desires to find a more patient-centered, proactive, and natural approach to their ongoing care (Litchy, 2011; Marshall et al., 2011; Pérard et al., 2015; Woodward et al., 2012).

Having explored the theoretical foundation, or "why," associated with this study, in the next chapter, I will shift focus to the necessary "how" of organizing and completing the necessary research. In Chapter 3, I will explore the overall research design, methodologies, sampling procedures, instrumentation, and data analysis

procedures. In addition, the chapter will include a discussion of the threats to internal and external validity and the potential generalization of results.

Chapter 3: Methodology

Introduction

In the literature review in Chapter 2, I explored the foundational theories and current research surrounding ESI, transformative learning, and holistic healthcare. The literature revealed a need to explore the differences in the development of ESI in online and traditional holistic healthcare students, controlled for the numbers of classes taken that include transformative learning. In this study, I explored the relationship between the dependent variable (ESI) and the multiple independent variables (i.e., program delivery method, program progress, transformative classes taken, and prior experience) through multiple linear regression, ANOVA procedures, and a Pearson's Correlation to determine the relationship between the 15 subscales and the independent variables. The instrument used to measure ESI was the EQ:i 2.0, published by MHS (2011). This instrument is based upon the ESI work of Bar-On (2006) and included five major scales with 15 subscales (MHS, 2011). In this chapter, I will introduce this study's (a) research design and rationale; (b) methodology (including population, sampling, power analysis, data, and instrumentation); and (c) threats to validity.

Research Design and Rationale

In this section, I will review the study's independent and dependent variables, overall research design, and the design rationale. At the broad level in this study, I focused on how educational and demographic factors alter ESI over time, instead of seeking to determine how ESI affects human performance, which is the focus of many

researchers. For example, instead of exploring how levels of ESI contributed to retention, I looked at how student persistence increased ESI.

Dependent Variable

ESI, as conceived of and described by Bar-On (2006), was the only dependent variable in this study and the only variable that was measured by the EQ:i 2.0 instrument. However, ESI as measured by this instrument was expressed in a single, continuous, overall measure, as well as a measure for each of five primary scales and each of the 15 subscales. In this study, I also explored the relationship between these subcategories and the independent variables for each research question and subquestion. Each of these iterations of measuring ESI existed as a continuous variable.

Independent Variables

There were four independent variables that I used to explore the factors that may affect students' ESI scores. Explained in more detail in the following subsections, these are program delivery method, program progress, transformative classes taken, and prior professional experience. For the methodology variable, I expected that there would be little difference between the two delivery methods and development of ESI. For the remaining variables, I expected that the more a student has experienced (e.g., more transformative classes or further along in their program), the higher would be their ESI.

Program delivery method. This variable referred to the teaching modality in which each student was enrolled. This was a categorical variable with two options: online and traditional. Online classes were taken through the institution's learning management system (Canvas) in a fully-facilitated, primarily asynchronous environment.

In this environment, students were responsible for maintaining progress with weekly assignment deadlines (Monday–Sunday), communicating with fellow students and instructors in the discussion boards, and organizing and participating in any local activities that allow them to practice the theory they are learning. Some classes had an opportunity for synchronous interaction; however, those sessions were not required. Traditional refers to students in on-campus, face-to-face classrooms that met at regular times and may or may not have had homework in-between class sessions.

I selected program delivery method as a variable as it allowed for the comparison at the heart of this study. Essentially, it created the foundation of whether online education students changed ESI at the same rate as on-campus education. I expected that, over time, the online and traditional methods of delivery would affect ESI in the same way.

Program progress. This was a continuous independent variable that referred to the student's temporal position within their program of study. This was expressed through the number of credits they completed toward graduation from a 60-credit AOS. Credits completed accounted for classes passed within the school's definitions of satisfactory academic progress. This means the received course grade must have been a C or better.

As this study was cross-sectional by design, there needed to be a measurement that placed each subject along a continuum of progress toward completion. This variable allowed for that. My expectation was that the longer a student was enrolled in the program, the more their ESI levels would increase. In other words, students at the end of

their second year would have a statistically significant increase in their ESI when compared to students at the beginning of their program.

Transformative classes taken. This variable was continuous and referred to the number of classes a student had completed that included elements of transformative learning theory. The institution had not formally adopted this theory as part of its course design paradigm; however, elements of it had been unconsciously integrated for many years due to the mission, vision, and values of the institution. Each course was evaluated against the characteristics of transformative learning (Mezirow, 1997, 2003) and categorized as transformative or non-transformative based upon the presence of seven or more elements of transformative learning.

While in this study, I was not exploring the question of course design theory's influence on students' levels of ESI in depth, this variable allowed an initial exploration of the influence of transformative learning theories. The variable provided a potentially significant contribution to the field through tying together transformative learning and ESI within online learning. The expected relationship was positive, such that the more transformative classes a student had taken, the higher their levels of ESI would increase.

Prior experience. This variable was a continuous variable that measured the number of years of experience a student had in holistic healthcare. This did not count years of training, only years of professional experience in the field. Experience was considered professional if services were paid for by a client and they were completed while appropriately licensed, if applicable. Including this variable in the study allowed me to control for the potential influencing factor of that experience. My expectation was

that the more professional experience a student had, the higher their levels of ESI would be. Therefore, a student with 5 years of prior professional experience would have a greater level of ESI than a student with no prior professional experience.

Study Design

In this study, I used a quasi-experimental, cross-sectional, quantitative design and sought to determine the relationship between the stated variables. The study was quasi-experimental as there was no intervention that took place during the research (Campbell & Stanley, 1966). The study took place at a small, privately owned, for-profit college of holistic health and wellness. This college, in the southwestern United States, had been in operation for 24 years and had been owned by the same two individuals for its entire existence. There was no board of directors or external influence on the school's operations, mission, or educational outcomes.

Cross-sectional design is one of the most common research designs for survey research in social sciences (Frankfort-Nachmais & Nachmias, 2008). Several studies in this area, as well as other academic areas, have used cross-sectional and quasi-experimental approaches to complete exploratory and contributory research (Collins 2013; Ghajarzadeh & Mohammadifar, 2013; Wang, 2012). The nature of this design allowed for the surveying of multiple students at several places within their program at the same time. This was necessary to determine students' development of ESI as a program progresses, as well as to discover the relationship of taking classes containing transformative learning elements to the development of ESI. In addition, this created efficiency of time when a longer, more thorough longitudinal study of the same content

was not possible. This study was constrained by time as well as financial resources. There was no financial backing for the study from the institution or any other source. All financial support came directly from me as the primary researcher, which removed potential bias generated by related sources of funding.

Methodology

In this section, I will review the study's population, sampling and sampling procedures, alternative sampling strategies, G*Power analysis, recruitment procedures, archival data procedures, instrument, and operationalization of constructs. The section is intended to orient the reader to the study's participants and selection processes so that the study may be replicated for validation or future study. The G*Power analysis provides the foundation for the number of participants needed to achieve the desired statistical power.

Population

The population for this study consisted of online and traditional students enrolled in classes leading to the completion of a 2-year degree at a small, private holistic health care college. These students could have been enrolled in either a 60-credit AOS, or in a shorter diploma that could be transferred into the AOS. The online AOS had a primary focus of transformational psychology, with elective areas including hypnotherapy, spiritual studies, and holistic nutrition. The traditional AOS had three areas of focus, transformational psychology, massage, or herbalism. Similar to the online version, each primary area of focus had elective choices like hypnotherapy, holistic nutrition, life coaching, and spiritual studies. At the diploma level, the areas of study that may be

transferred into an AOS included: Advanced Holistic Nutrition, Overall Holistic Wellness, and Integrative Wellness. Traditional students may have selected from Holistic Nutrition, Massage, and Overall Holistic Wellness.

This population included students at all stages of their program, from initial enrollment up to participation in their final class. For the purposes of the program progress variable, students enrolled in a credential shorter than the AOS will have their credits attempted evaluated against a projected total of 60 credits. This positioned them within the overall length of the AOS should they choose to continue on to an AOS at some point during their enrollment. For some programs, students have the option of enrolling full-time or part-time. Enrolling part-time does not alter the overall credit requirements for program completion, only the calendar length of time they have to complete those requirements. Therefore, the program progress variable was not affected by this choice.

Students considered eligible at the time of the study were those active in a program, on a leave of absence, or those scheduled to begin a program prior to the data collection phase of this study. As of August 15, 2016, when the study began, that total population was 637 students. Table 3 details the enrollment information at the institution. Online students totaled 302, with 124 enrolled in the full AOS and 178 enrolled in diplomas that could lead to the AOS. Online Transformational Psychology was the only area of concentration for the AOS. Areas of study for online diplomas included Holistic Nutrition, Holistic Wellness, and Integrative Healing Arts. There were 23 students enrolled online in a part-time schedule. These students would take fewer

credits simultaneously; however, they have the same overall requirements for program completion. Traditional students totaled 335, with 132 enrolled in the full AOS and 203 enrolled in diplomas that could lead to an AOS. There were 45 traditional students enrolled in part-time schedules.

Table 3

Distribution of Students by Modality and Program

Modality and Program	Credential	Students
Online		
Transformational Psychology	AOS	119
Transformational Psychology – PT	AOS	5
Holistic Nutrition Wellness Pract.	Diploma	76
Holistic Nutrition Wellness Pract. – PT	Diploma	5
Holistic Wellness Pract.	Diploma	46
Holistic Wellness Pract. – PT	Diploma	10
Integrative Healing Arts Pract.	Diploma	38
Integrative Healing Arts Pract. – PT	Diploma	3
Online Total		302
On-Campus		
Herbalism	AOS	8
Herbalism - PT	AOS	1
Nutrition and Herbalism	AOS	26
Nutrition and Herbalism - PT	AOS	1
Prof. Massage	AOS	6
Prof. Massage - PT	AOS	1
Transformational Psychology	AOS	86
Transformational Psychology - PT	AOS	3
Master Massage	Diploma	14
Master Massage - PT	Diploma	4
Mind Body Wellness Pract.	Diploma	38
Mind Body Wellness Pract. - PT	Diploma	6
Prof. Massage	Diploma	49
Prof. Massage - PT	Diploma	13
Western Herbalism	Diploma	1
Western Herbalism - PT	Diploma	4
Yoga 600	Diploma	20
Yoga 600 - PT	Diploma	6
Yoga 800	Diploma	42
Yoga 800 - PT	Diploma	6

On-Campus Total	335
Grand Total	637

Note. "PT" indicates programs that are delivered in a part-time schedule.

Sampling and Sampling Procedures

The purpose of this study was to approximate as much as possible a normative sampling based on student demographics and chosen method of delivery. Therefore, the research design used a probability sample to ensure that each unit from the student body was represented. More explicitly, if sufficient participants completed the instrument, it would use a proportional stratified random sample to allow for an accurate representation of the demographic construction of the population (Frankfort-Nachmias & Nachmias, 2008). In addition, if sufficient responses were received, they would be controlled and randomly selected to match the overall population of the school. Neither of these circumstances were possible due to the lower than expected response rates. As such, the study used convenience sampling based upon those who completed the surveys. The collected data included (a) survey data, (b) demographic data, (c) student progress information (credits), and (d) ESI data. All data points other than categorical demographics and delivery methodology were treated as continuous as past researchers have done so with both Bar-On's EQ-i and Mayer and Salovey's MSCEIT (Behnke et al., 2011Han et al., 2012; and Larin et al., 2014;).

Alternative Sampling Strategies

There are a variety of sampling strategies typically divided into two categories: probability and nonprobability. Nonprobability sampling strategies (i.e., convenience sampling, purposive sampling, and quota sampling) were not initially considered for this

study as (a) it is not possible to determine the inclusion of each unit in the sample, and (b) there is no way to generalize to populations outside of the study (Frankfort-Nachmias and Nachmias, 2003). The other probability designs that were not selected are simple random samples, systematic samples, and cluster samples. Cluster sampling was not applicable to this study as this method is generally for large-scale studies. Systematic sampling, while simpler than stratified sampling, could lead to potential bias from an unseen sample pattern, and it does not allow the results to be related to the population as accurately as proportionate stratification. Finally, simple random sampling ensures the sample represents each unit from the population, but does not ensure the proportions for each unit type align.

G*Power Analysis

G*Power 3.1 (Faul, Erdfelder, Buchner, & Lang, 2009) enables researchers to determine the requisite sample size necessary to achieve the desired power. To do so, researchers must first determine which statistical tests they will use during the study. This study used Pearson Correlations, MANOVA, and ANOVA tests, along with standard procedures for testing assumptions of linearity (skewness and kurtosis, Kolmogorov-Smirnov, and Box's test). Trochim (2006) indicated that determining appropriate statistical power is about creating "a balance of the four components" to have the best chance of finding an effect if one exists (para. 5). This requires knowing an appropriate sample size. As such, G*Power (Faul et al., 2009) was used to run an A priori calculation on MANOVA: Global Effects. The effect size was set to 0.15, the significance level was .05, the power level was 80%, the number of groups was two

(online and traditional), and the number of response variables 21 (total EI, five category totals, 15 sub–categories). A level of 0.15 for establishing a minimum effect size for significance (e.g., r, r^2, and η^2) was found in most all of the similar research reviewed for this study (Collins, 2013; Fayombo, 2012; Pope, 2012; Sparkman et al., 2012; Valdez Sierra et al., 2013; and Zabihi & Dabaghi, 2013). The above inputs generated a necessary sample size of 152, or 76 per group. At the time this calculation was completed, the population consisted of approximately 352 online students and 269 traditional students. With those population numbers, there was a necessary return rate of 12.24% for each delivery methodology.

To compute the sample size for ANOVA for main effects and interactions the same effect size, significance level, and power level was entered into G*Power (Faul et al., 2009). First, to test for main effects, the delivery method independent variable was isolated for its number of levels, and the numerator *df* was set to one for (i.e., two (methods) – 1) and the number of groups set to two. This required a sample size of 351 students, or 56.5% of the total population. Next, credits earned, transformative classes taken, and prior professional experience are all continuous variables that examined their effect based upon the combined or separated delivery method. For these, an ANOVA: fixed effects, omnibus one-way A priori calculation was completed. This analysis used two groups for the split population. The result required a population of 352.

Procedures for Recruitment, Participation, and Data Collection

Recruitment. The first step to recruiting participants was securing cooperation from the site institution. This was completed informally with the school owner in the

summer of 2015 and formally in the Spring of 2016. The next step was to secure approval from the IRB at Walden University. With approvals in place, I introduced potential candidates to the study through both e-mails and physical letters (Appendix B). Online students received initial materials through e-mail only, while traditional students received the same materials through the distribution of physical letters. The distribution of materials through multiple channels helped ensure each population received the same information in a way they were most comfortable. These materials included a letter of introduction from me that framed the intention and content of the study. The packet also contained the details of participation, how much time it was projected to take to complete the survey, what was expected of them to be considered complete, how data would be used, and an agreement and consent form. In addition, there was an appropriate ethics statement and recognition of the institution's and Walden's approval for the study to take place. Finally, the instructions included my contact information should students have any questions.

Once students read through all materials, they were provided with a link to begin the study. Following that link indicated the student's consent to the prior agreements and form. Participants completed a Google Survey to capture their demographic information and professional experience. They then completed the EQ:i 2.0 through the MHS portal.

Participation. Students who participated took the survey electronically, on their own time, outside of normal course hours. These methods saved mailing costs, increased potential response rates (Frankfort-Nachmias & Nachmias, 2008), and mitigated the typical speed of return concern presented by mail-based surveys. Students taking the

survey first completed a short Google Survey by following the provided link. This survey asked about their prior professional experience and demographic information. Students were then directed to log-in to the MHS survey portal. This portal was available all day and every day during the open period. Students entered their ID or name and completed the full EQ:i 2.0. This survey is 133 items and generally took approximately 10–35 minutes (MHS, 2011). Once completed, the student received a notice that they were finished. There was no other electronic follow up or report generated by the system.

Data collection. Data were collected from active students enrolled in both online and traditional versions of the same or similar holistic health care programs. Data were collected through both a Google Survey and the EQ:i v2.0 online site. Students' IDs or names were used on both for identification. Data from the Google Survey were collected into a Google Spreadsheet and then moved into Excel, and eventually into SPSS. Data from the EQ:i 2.0 were received from the MHS portal in the form of an Excel spreadsheet. This data were then matched in Excel with the student IDs or names from the Google survey and imported into SPSS for analysis. Additional data regarding students' gender were accessed through the student information system. This system exports into Excel spreadsheets that were subsequently analyzed and imported into SPSS. There were no follow up treatments or interviews required for this study. However, if requested, I agreed to provide a copy of the completed study once published.

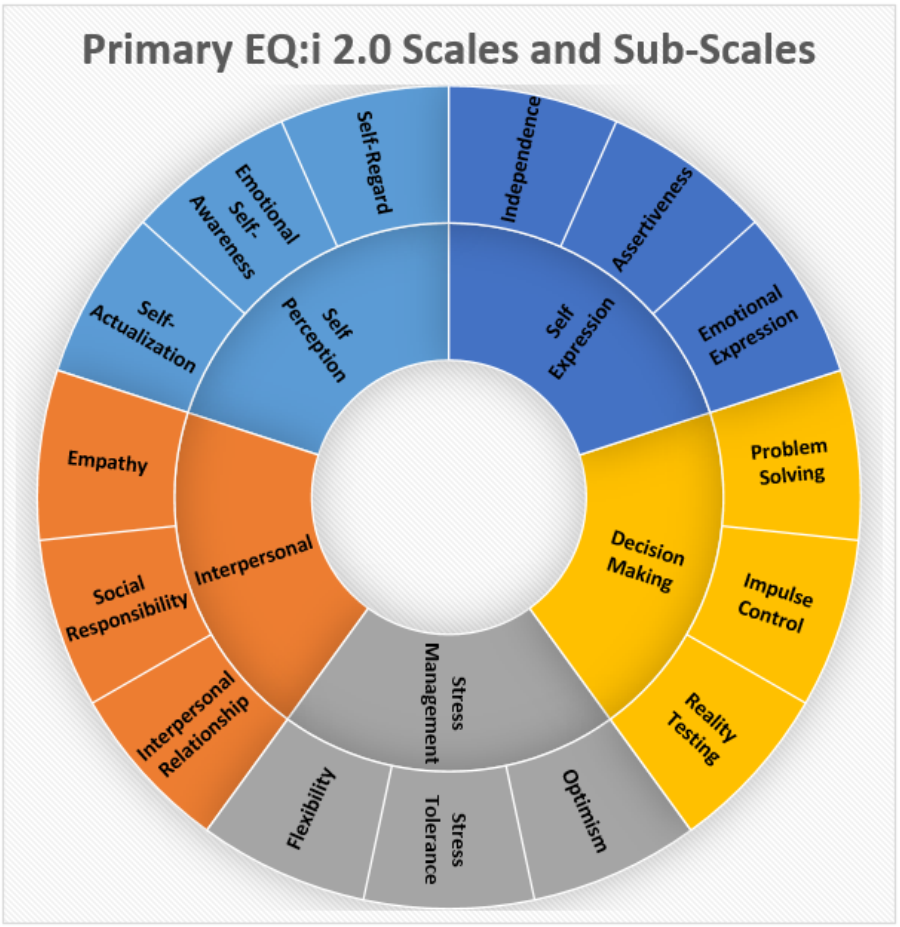
Archival data. Archival data for students participating in the study was in the institution's Diamond Student Information System (SIS). Participant ID numbers or

names were retrieved from the survey and matched with data in Diamond SIS for use during analysis and reporting. In addition, information regarding student's academic progress for measuring place in program, methodology, and number of transformative classes taken was pulled from this system. Username and passwords secure this system. The founder of the institution granted approval to complete the study and access all necessary data. The school requested equal access to the results of the study. No historical or legal documents were used as sources of data for this study.

Instrumentation and Operationalization of Constructs

Bar-On's (2006) and MHS' (2011) EQ-i is one of the most widely used and distributed measures of ESI (Bar-On, 2006; MHS, 2011). It has been used in multiple studies related to ESI in education, healthcare, and business (Basseda et al., 2011; Bhenke, 2011; Ghabanchi, 2014; Ghajarzadeh, 2013; Larin, 2014; Megreya, 2013; Monselise, 2013; Pesce, 2014; Sparkman et al., 2012; van Zyl, 2012; Zuksel, 2014; and Zabihi, 2013). The EQ:i 2.0 is a revision of Bar-On's original instrument. I will provide further information regarding the EQ:i's validity, reliability, and development in the following Construct Validity subsection. The instrument was distributed through MHS (2011) and maintains five general scales that break into 15 separate subscales. The breakdown is as follows of these subscales can be seen in Figure 1. Permission to use the instrument was granted by MHS on April 29, 2016. A dissertation committee member maintains the requisite credentials to fulfill MHS' standards for distributing and analyzing an APP B-level test.

Figure 1. Primary EQ:i 2.0 scales and subscales.



Threats to Validity

Construct Validity

Bar-On's (2006) first version of the EQ:i Instrument, upon which the newer v2.0 is based, was normed with over 3,800 adults in North America, but has since been tested for reliability across multiple cultures, ages, and genders. It includes measures to adjust for inflated reports of ability (Positive Impression Scale) as well as to measure the reliability of each respondent (Bar-On, 2006; and Nicholls, 2012). In addition, any

measures that are 2 SD above the mean are to be examined as potential outliers (Grubb, 2007). While there have been some changes between the first and second versions of the EQ:i, most of the first version is still in place, leading most researchers to use the existing validity and reliability data of the former for the later (van Zyl, 2014). That said, van Zyl (2014) completed a study on the reliability and psychometric properties of the EQ-i 2.0 that determined "almost all of the items on the EQ-i 2.0 subscales function as expected," and that the internal reliability and validity of the instrument is upheld (p. 7).

External Validity

External validity refers to the ability to apply the study's conclusions to a broader population (Campbell & Stanley, 1966). Also known as generalizability, external validity is concerned with how well the sample represents the larger population to which results may be applied, and whether the situation and environment of the experiment mimics the natural setting to be generalized (Frankfort-Nachmias & Nachmias, 2008). While traditional experiments may be weaker in this area, cross-sectional and quasi-experimental studies generally have a better picture of the larger population at the expense of some control (Frankfort-Nachmias & Nachmias, 2008). This study had no experimental component, so there were no reactive arrangements that might impact the results of the study.

Internal Validity

Internal validity represents the control a researcher has over their study's experimental implementation, and their ability to eliminate any intrinsic or extrinsic explanations of the association between the study's variables other than the treatment

(Campbell & Stanley, 1966). Without internal validity, "any experiment is uninterpretable" (Campbell & Stanley, 1966, p. 5). Extrinsic factors come from selection effects creating bias because experimental and control groups are too dissimilar. These can be exacerbated if participants self-select into the study as it becomes challenging to determine if any observed changes were caused by the independent variable or the way subjects were selected (Frankfort-Nachmias & Nachmias, 2008).

Intrinsic factors are those that can occur internal to the study that could skew or bias the results (Campbell & Stanley, 1966; and Frankfort-Nachmias & Nachmias, 2008). Those that could have potentially affected the validity of this study were history, maturation, instrumentation, and testing. Those that had no effect are experimental mortality, regression artifact, selection-history, selection-maturation, and matching. History references the events that happen to the participants during the study that are not under control of the study (Campbell & Stanley, 1966). In the case of this study, there could have been events that happened to students to increase their ESI that cannot be controlled for through the research design. Students enrolled in part-time versions of programs may be at a greater risk of being affected by this intrinsic factor. Maturation, or the natural growth that occurs with aging, could also affect students' ESI as studies have demonstrated a difference in ESI based upon age (Cherry, 2012; Lindsey, 2014; and Sparkman et al., 2012). This study collected participants' ages in order to check to see if it represents a significant contributor to explaining the relationship between variables, if there were any significant relationships.

Next is instrumentation, which considers the nature of the survey or test being administered and whether it reliably measures the same way between pretests and posttests. While this study did not have that experimental structure, the EQ:i 2.0 has been found to have strong reliability (Bar-On, 2006; MHS 2011; and Monselise, 2013). The testing intrinsic factor examines how much the act of taking a survey many change the participant's performance. Again, this is typically only relevant for pretest-posttest experiments. However, in this case there was concern participants may have exaggerated their own ESI characteristics. As with instrumentation, the EQ:i 2.0 has integrated mechanisms that account for this potential (Grubb III & McDaniel, 2007; Monselise, et al., 2013). Even though cross-sectional and quasi-experimental designs have challenges to internal validity, these can additionally be mitigated by using causal analysis or path statistical techniques (Campbell & Stanley, 1966; Frankfort-Nachmias & Nachmias, 2008).

Experimental mortality refers to the number of participants that drop the study between the posttest and pretest. As this study is cross-sectional there was no potential for experimental mortality. Similarly, regression artifact, which looks at whether extraordinary results on a pretest measuring the dependent variable were used to assign participants to the control or experimental group, does not apply. Finally, selection-history, and selection-maturation only apply to designs that have experimental and control groups (Campbell & Stanley, 1966).

Ethical Procedures

The institution's owner, and Walden IRB, approved the study's contents, goals, and procedures. The study's Walden IRB approval number was 08-09-16-0128106. As this was a quasi-experimental study with no intervention there were no ethical concerns over intervention activities that needed to be addressed. Similarly, the recruitment materials contained full disclosure of the intention and processes of the study, and there were no incentives for participation. As such, there were no ethical dilemmas presented there either.

All reported data were confidential and free from any identifying information. While participants' student ID numbers was used to match survey results with demographic and academic progress information, students' names and IDs were scrubbed from all published materials. The archival data itself was under control of the school and subject to its records retention policies and procedures.

The most significant potential for ethical concerns was the current relationship between myself and the institution. I currently hold the position of director of compliance and on-campus education. In this role, I oversee all aspects of institutional compliance, including alignment with and implementation of national and state accreditation requirements. In addition, I oversee the on-campus education department including the management of faculty, curriculum development, course offering frequency, and facilities concerns. However, I hold no authority or power over students. The institution has a separate dean of students who oversees the Student Services department and all student affairs inside and outside of the classroom. As such, there is

no opportunity for a power differential to exist between the potential participants and the researcher.

Summary

This research study was a quasi-experimental, cross-sectional study exploring the relationship between ESI and several independent variables (i.e., program methodology, program progress, transformative learning classes taken, and prior experience). Through a planned multiple linear regression (MANOVA), ANOVA, and a factorial analysis it sought to discover these relationships. The G*Power predictions for required participants for each analysis demonstrated sufficient potential subjects the planned analyses, except for a full look at all interactions simultaneously. These analyses were revaluated when the number of participants was determined.

Participants were made up of students at a small, private college for holistic healthcare that offers 1 and 2-year credentials in holistic healthcare delivered both online and on-campus. Data were collected using the EQ:i 2.0, which was a new version of the prior EQ:i published by Bar-On (2006). Additional data were retrieved from the site's student database and correlated via Student ID number or name. I secured approval from both the site's and Walden University IRB. While there was no experiment in this study, any bias present from the self-selection process should be mitigated by using a probability sample from the participants that matches the overall characteristics of the population. I will present the results of this study and the analyses in the following chapter.

Chapter 4: Results

Introduction

Research into the interaction of ESI, education, online methodologies, and the healthcare sector has increased since its rise to public awareness in the mid-90s. An area previously unexplored in the literature was the interaction between these within holistic healthcare education. The purpose of this study was to determine if there were any connections between educational delivery method and changes in learner's ESI within that area. In addition, I explored the relationship between classes designed with elements of transformative learning and changes in ESI.

In this chapter, I will first review the study's setting, participant demographics, and data collection methods. I will then discuss my analysis of the data in relationship to each of the hypotheses derived from the research question and subquestions. Finally, I will explore the meaning of those results before summarizing the findings and transitioning to the final chapter of the study.

Setting

The study took place in a small, private, holistic health college in the southwestern United States. At the time of the study, the school had approximately 1,200 students total in a variety of degree, diploma, certificate, and continuing education classes. During the study, there were no extraordinary conditions at the school that may have influenced participants or their experience. Instructional and administrative staff remained consistent. Classroom delivery remained steady, and there were no outages in

the online environment. In addition, as the survey was delivered electronically through the MHS portal, every student had the same experience of the instrument.

Demographics and Descriptive Statistics

In this section, I will present the study's overall population (*N*) and participant (*n*) demographics relevant to the study. I will also relate these percentages to overall U.S. Census characteristics, as well as presenting the descriptive statistics of the dependent variables. The population characteristics included gender, age group, and ethnicity. While these were not directly a part of the study's research question and subquestions, they were necessary to help determine if the sampling population adequately represented the overall population.

Table 4 shows the total available population for the study. This consisted of 736 students, which were distributed across learning settings with 350 taking online classes and 386 taking traditionally-delivered classes. The table represents this population by demographic (i.e., gender, age group, and ethnicity), number of students taking online and traditional, and the percentage of the total for each. Table 5 presents the same statistics for the sample population. This population consisted of 156 students, which were distributed with 95 taking online classes and 61 taking traditionally-delivered classes.

Table 4

Demographics of Population(N)

Demographic	Online *N*	% of *N*	Trad. *N*	% of *N*	Total *N*
Gender					
Female	329	44.70 %	318	43.21 %	647
Male	21	2.85%	68	9.24%	89
Age Group					
Under 18	1	0.14%	0	0.00%	1
18–19	1	0.14%	5	0.68%	6
20–21	4	0.54%	28	3.80%	32
22–24	27	3.67%	40	5.43%	67
25–29	54	7.34%	85	11.55 %	139
30–34	52	7.07%	72	9.78%	124
35–39	62	8.42%	46	6.25%	108
40–44	51	6.93%	30	4.08%	81
45–49	39	5.30%	29	3.94%	68
50–59	49	6.66%	42	5.71%	91
6064	9	1.22%	9	1.22%	18
65+	1	0.14%	0	0.00%	1
Ethnicity					
American Indian or Alaska Native	4	0.54%	8	1.09%	12
Asian	1	0.14%	11	1.49%	12
Black or African American	38	5.16%	25	3.40%	63
Hispanics of any race	33	4.48%	53	7.20%	86
Native Hawaiian or Other Pacific Islander	0	7.88%	2	0.27%	2
Race and Ethnicity Unknown	58	0.14%	33	4.48%	91
Two or more races	1	29.21 %	11	1.49%	12
White or Caucasian	215	0.54%	243	33.02 %	458

Table 5

Demographics of Participants(n)

Demographic	Online *n*	% of *n*	Trad. *n*	% of *n*	Total *n*
Gender					
Female	90	57.69%	53	33.97%	143
Male	5	3.21%	8	5.13%	13
Age Group					
Under 18	0	0.00%	0	0.00%	0
18–19	1	0.64%	1	0.64%	2
20–21	0	0.00%	3	1.92%	3
22–24	6	3.85%	5	3.21%	11
25–29	7	4.49%	16	10.26%	23
30–34	11	7.05%	7	4.49%	18
35–39	15	9.62%	3	1.92%	18
40–44	12	7.69%	6	3.85%	18
45–49	14	8.97%	9	5.77%	23
50–59	22	14.10%	9	5.77%	31
60–64	6	3.85%	2	1.28%	8
65+	1	0.64%	0	0.00%	1
Ethnicity					
American Indian or Alaska Native	0	0.00%	1	0.64%	1
Asian	1	0.64%	0	0.00%	1
Black or African American	10	6.41%	6	3.85%	16
Hispanics of any race	8	5.13%	9	5.77%	17
Native Hawaiian or Other Pacific Islander	0	0.00%	0	0.00%	0
Race and Ethnicity Unknown	13	8.33%	3	1.92%	16
Two or more races	0	0	2	1.28%	2
White	63	40.38%	40	25.64%	103

In this section, I also look at the similarities between this participant data and the overall U.S. Census to determine similarities between them. Table 6 compares these percentages. U.S. Census percentages for race total more than 100% due to the ability of

respondents to select more than one race if they are of mixed ethnicity (U.S. Census Bureau, 2015).

Table 6

Comparing Participants(n) to U.S. Census

Demographic	*% of n*	% of 2015 U.S. Census
Gender		
Female	91.67%	50.80%
Male	8.33%	49.20%
Age Group		
Under 18	0%	22.9%
18–19	1%	Census does not delineate. Total
20–21	2%	percentage for 18–64: 62.2%
22–24	7%	
25–29	15%	
30–34	12%	
35–39	12%	
40–44	12%	
45–49	15%	
50–59	20%	
60–64	5%	
65+	1%	14.9%
Ethnicity		
American Indian or Alaska Native	1%	1.2%
Asian	1%	5.6%
Black or African American	10%	13.3%
Hispanics of any race	11%	17.6%
Native Hawaiian or Other Pacific Islander	0%	0.20%
Race and Ethnicity Unknown	10%	8.33%
Two or more races	1%	2.6%
White	66%	77.1%

Descriptive statistics of the results from respondent's surveys are provided in Table 7. The reduced *n* in this number is representative of those scores that needed to be removed according to the instrument's instructions (MHS, 2011). There was also one student who did not complete the prior professional experience survey and was removed from those analyses.

Table 7

Descriptive Statistics

	N	Minimum	Maximum	*M*	*SD*
Months of Professional Experience	146	0	240	21.45	44.889
Credits Earned	147	.00	65.00	18.9190	17.93793
Transformative Credits	147	0	56	9.90	11.734
Total EIQ Score	147	73	136	109.06	12.647
Self-Perception Total	147	74	130	108.56	12.279
SP-Self-Regard	147	66	121	102.23	12.915
SP-Self-Actualization	147	68	127	109.18	11.745
SP-Emotional Self-Awareness	147	76	132	112.39	12.656
Self-Expression Total	147	51	132	105.39	14.441
SE-Emotional Expression	147	51	131	105.33	15.730
SE-Assertiveness	147	49	126	101.03	14.264
SE-Independence	147	46	124	105.41	12.583
Interpersonal Total	147	71	132	110.71	11.884
IS-Interpersonal Relationships	147	54	124	104.89	13.363
IS-Empathy	147	75	129	113.22	11.882
IS-Social Responsibility	147	73	129	109.44	12.477
Decision Making Total	147	67	137	104.97	13.382
DM-Problem Solving	147	53	125	101.35	13.814
DM-Reality Testing	147	73	134	107.82	12.925

DM-Impulse Control	147	65	129	103.08	13.824
Stress Management Total	147	69	132	108.67	13.300
SM-Flexibility	147	43	137	108.49	14.845
SM-Stress Tolerance	147	70	128	104.01	12.881
SM-Optimism	147	77	123	109.07	11.822
Happiness Scale	147	63	120	103.07	12.143

Data Collection

The initial pool of available participants totaled 736, 48% online and 52% traditional. The final sample consisted of 156 participants, 61% online and 39% traditional. There were 45 participants who were ineligible for the final study due to either an incomplete survey response (33) or they completed the survey but were ineligible due to their status at the institution (12). In this last category, eight were nondegree seeking students, two had already graduated, one was a teacher, and one had dropped out from the program prior to the study beginning. These participants received the link from either the general announcement within the online environment or were given the information by a fellow student and did not thoroughly read the requirements prior to participating.

All data collection occurred electronically through participants' personal devices. The data collection period began August 15th, 2016 and closed on September 20, 2016. Both the Google Survey and the EQ-i 2.0 were available during this time. EQ-i 2.0 data were collected through the MHS portal, while the Google Survey data were collected into a Google Sheet and matched with MHS data within Microsoft Excel. There were no variations in data collection from the plan I presented earlier in Chapter 3.

Data Analysis

I analyzed the data from the study based upon the research question and subquestions and hypotheses presented in Chapter 1. The primary research question in this study was: Is there a difference between the ESI levels of students as they progress through their online or traditional holistic healthcare program? The subquestions were: If so, what are the factors differentiating those levels? Does the number of classes taken by students that contain elements of transformative learning influence the development of their ESI? The three alternative hypotheses I derived from this question were:

$H1_a$: Students' ESI increases in both on online and traditional students as they progress toward graduation.

$H2_a$: There is a difference in the ESI levels of online and traditional students as they progress through their holistic healthcare program.

$H3_a$: There is a difference in the levels of ESI for students who have taken courses with transformative design elements compared with students who have not.

In this section, I will explore the gathered data based upon each hypothesis. The independent variable of prior professional experience was evaluated as a mediating variable to determine if other analyses needed to control for its influence. Prior to analyses, I removed any results indicated as invalid by the EQ:i 2.0 from the data set, reducing it to $n = 147$ (91 online students and 56 traditional students). Skewness and kurtosis, Kolmogorov-Smirnov, and Box's tests were run to analyze assumptions of linearity. A Pearson correlation matrix was used to determine any initial relationships between the independent variables and the multiple dependent variables within the EQ:i

results. I then used a MANOVA as the primary analysis due to the multiple correlations I sought to analyze in the study. This process reduces compounding Type I errors from multiple ANOVA (Field, 2013) and better fits seeking correlation between the multiple dependent variables represented by the EQ:i main and subcategories.

Assumptions of Linearity

All three independent variables (program delivery method, program progress, and transformative classes taken) and all variables associated with the EQ:i 2.0 (total score, five primary scales, and the 15 subscales) were first explored for normalcy through SPSS. My first analysis examined the data with online and traditional students combined. Skewness and kurtosis for all variables were less than or greater than zero, indicating nonnormal distributions. Supporting this, for all but the Decision Making Total ($D(146) = 0.065$, $p = .200$) score, the Kolmogorov-Smirnov statistic was significant, indicating the data deviated significantly from normal (Field, 2013).

For a second analysis, I split the data file between online and traditional delivery methods to determine normalcy within each group. Results varied slightly from the combined analysis. In online, seven variables indicated normalcy: total EI score ($p = 0.087$), Self-Expression-emotional expression ($p = 0.200$), Interpersonal total ($p = 0.054$), Decision Making total ($p = 0.161$), Decision Making-problem solving ($p = 0.200$), DM-reality testing ($p = 0.178$), and Decision Making-impulse control ($p = 0.119$). For traditional delivery, eleven variables demonstrated normalcy based upon Kolmogorov-Smirnov: total ESI score ($p = 0.071$), Self-Expression total ($p = 0.067$), Self Expression-emotional expression ($p = 0.200$), Interpersonal total ($p = 0.061$), Interpersonal-

interpersonal relationships (p = 0.090), Decision Making total (p = 0.200), DM-reality testing (p = 0.200), Stress Management total (p = 0.062), Stress Management-flexibility (p = 0.200), Stress Management-stress tolerance (p = 0.200), and Happiness (p = 0.083).

In addition, I analyzed the study data using Box's test to determine the equality of the covariance between the multiple dependent variables and the individual independent variables. The results of Box's test should be nonsignificant to indicate this equality (Field, 2013). For the first variable, delivery method, Box's test was significant, p = .02, indicating this assumption was violated. Box's test was not run on the other independent variables as they are all continuous and do not have the sufficient covariance matrices.

The results of these analyses led to the decision to complete all future analyses with bootstrapping to account for potential bias presented by nonnormal data (Field, 2013). Bootstrapping is a form analysis that uses robust methods to account for data that does not meet requisite assumptions of linearity (Field, 2013). These processes take multiple small samples from the full population of the data and estimate their means, which is then returned back to the total (Field, 2013). For all analyses in this study, bootstrapping was set to use 1,000 samples. It also creates a Bias Corrected and Accelerated (BCA) confidence interval, which represents the range within which 95% of the results fell.

Correlation Matrix

To find initial trends, analysis started with a Pearson Correlation Matrix showing all aspects of the EQ:i 2.0 (i.e., total score, category totals, and subtotals) and the independent variables of professional experience, credits earned, and transformative

credits taken. The datafile was split in SPSS along the delivery methodology of online and traditional. Significance levels were set at $p < 0.05$ for a two-tailed analysis as the direction of correlation was uncertain. As mentioned above, all analyses were bootstrapped to account for non-normalized data. Table 8 reports the results of all significant correlations from this matrix.

Table 8

Significant Results of Correlation Matrix

			BCa 95% Confidence Interval	
Online Participants (n = 90)	Sig.	r	Lower	Upper
Credits earned & Self Expression Total	.036	.210	.030	.393
Credits earned & SE-Independence	.009	.275	.037	.477
Transformative Credits and SE-Independence	.008	.279	.060	.460
Traditional Participants (n = 56)				
Professional & Total EQ	.027	.296	.107	.456
Professional & Self-Expression Total	.030	.290	.051	.478
Professional & SE-Independence	.016	.321	.192	.468
Professional & IS-Social Responsibility	.023	.304	.110	.468
Professional & Decision Making Total	.012	.334	.100	.521
Professional & DM-Problem Solving	.010	.342	.127	.510
Transformative & Self-Perception Total	.033	.286	.099	.442
Transformative & SP-Emotional Self-Awareness	.042	.272	.100	.433
Transformative & SM-Optimism	.046	.268	.027	.447

All variables that demonstrated significant correlation as a result of this analysis are shown in Table 6. All other variables did not show significant correlation in the Pearson Correlation Matrix and are not displayed due to their number. The correlation between prior professional experience and Decision Making-impulse control, seemed

significant at $p = .045$, and $r = .269$. However, the 95% CI [-.004, .346] crossed zero, indicating the direction of the correlation is unclear, and therefore the significance is invalid (Field, 2013).

Alternative Hypothesis 1: ESI Levels Increase as Students Progress

$H1_a$: Students ESI increases as they progress toward graduation. The first item explored is the relationship between student progress within their academic program and all ESI measures. The analysis measured student progress by examining the number of credits students have earned thus far. The Pearson Correlation results demonstrated the only significant correlation that existed between these is for Self-Expression and Self Expression-independence within online students (Table 6). A MANOVA between credits earned and all dependent variables was utilized to verify these relationships.

The bootstrapped MANOVA between credits earned and all dependent variables indicated that Self Expression-emotional expression was correlated, $F(1, 83) = 1.884$, $p = .005$. All other relationships were non–significant. This indicates that overall, while students' ability within emotional expression increases the more credits they take, it also demonstrates that the remaining 14 sub–factors, five primary categories, and overall Total ESI score did not change significantly.

Alternative Hypothesis 2: ESI Levels Based on Delivery Method and Progress

$H2_a$: Students ESI increases as they progress toward graduation based upon their chosen method of educational delivery. As above, this question explored the relationship

between student progress and ESI levels. However, it examined them independently between online and traditional delivery methods. The same MANOVA as above was run, however the file was split in SPSS used the delivery methodology variable.

In the online methodology, as above, credits earned showed a significant relationship only to Self Expression-emotional expression $F(1, 57) = 2.072$, $p = .013$. For traditional delivery, no relationships were significantly correlated. This further demonstrates that the level of emotional intelligence is not changing significantly based upon the total number of credits taken.

Alternative Hypothesis 3: ESI Levels Based on Transformative Classes Taken

$H3_a$: There is a difference in Students ESI based upon the number of transformative learning classes they have taken. To test this hypothesis, analysis consisted of two different MANOVA. The first examined these relationships with delivery methodologies combined, while the second explored them separately. For the combined analysis, no relationships between the number of transformative learning classes and ESI levels were significant. In addition, the analysis split between online and traditional delivery demonstrated the same lack of significance.

Professional Experience as a Moderator Variable

This section explores the relationship of prior professional experience to ESI levels, as well as checked to see if it had a moderating relationship with either credits earned or transformative credits earned. The first analysis (MANOVA) looked at ESI levels with methodologies combined. This analysis revealed that, as with the other results, Self Expression-emotional expression was significant, $F(1, 33) = 1.676$, $p = .025$.

In addition, Stress Management Total was significant, $F(1, 33) = 2.072$, $p = .013$. When the MANOVA was run with the file split on methodology, for online Stress Management Total was also significant, $F(1, 27) = 1.998$, $p = .013$, and Decision Making-problem solving, $F(1, 27) = 1.758$, $p = .035$, was significant. For traditional students, there were no significant relationships between prior professional experience and ESI levels.

A moderator variable is one that influences the relationship between two other variables (Field, 2013). In order to check to see if prior professional experience acts as a moderator variable between students' progress (credits earned) and their ESI levels, analysis used Hayes's (http://www.afhayes.com) *PROCESS* tool plugin for SPSS, which explores both moderation and mediation. For moderation, it uses regression coefficients and provides the *b* value, standard errors, a *t* test, and relevant confidence intervals. If there is significance, it follows with output from the Johnson-Neyman calculations of simple slopes. These were completed with a combined file as the *PROCESS* tool is not able to manage a split file. Prior to checking all the possible variables, analysis began by checking the one that had demonstrated the most significance (Self Expression-emotional expression), as well as the total ESI scores. These results indicated no significance with all *p* values greater than .05, and all confidence intervals containing 0. Similarly, Total ESI, Self-Perception total, Interpersonal total, Decision Making total, and Stress Management total demonstrated no significance.

However, there was significance when looking at Self-Expression total. Specifically, when looking at the mean level of prior professional experience from the results of the there is a positive relationship $b = 0.128$, 95% CI [.003, .252], $t = 2.018$, $p =$

.046. This implies that the relationship between credits earned and Self-Expression total, was moderated by prior professional experience only when it is at average levels. Alternatively, at low levels, $p = .085$ and at high levels, $p = .256$, there was no significance of the model. Overall, while prior professional experience appeared to have the most correlation to the dependent variables in the Pearson Correlation Matrix, it did not appear to be a significant moderating variable between credits earned and ESI levels.

Gender Difference

As discussed in the literature review, existing research has been inconclusive regarding the effect of gender on emotional intelligence scores (Bar-On, 2006; Behnke & Greenan, 2011; Kumar & Muniandy, 2012; Nasir & Munaf, 2012; Pope et al., 2012; Sierra et al., 2013). As the institution understudy was primarily female, as reflected in the participant population (Female = 91.67%, Male = 8.33%), an additional independent *t* test was performed to determine if any significant differences existed between male and female students as an additional explanation of the non-significant results. As with other tests, due to the non-normal nature of the data, the analysis was bootstrapped using *BCA Confidence Intervals*. Results (see Table 7) indicated significant differences between genders for the total ESI score, Self Expression-emotional expression, Interpersonal total, Interpersonal-interpersonal relationships, Interpersonal-empathy, and Stress Management-optimism. All remaining scales demonstrated no significance or contained a BCA 95% CI that contained zero, indicating no actual significance. As with past research, in all cases where a significant difference was present, female participants had

the higher score (Sierra et al., 2013). Table 9 reports all significant differences in scores based upon gender.

Table 9

Gender Differences

Scale	Sig.	*t*	*SE*	*BCa 95% Confidence Interval*		*Mean*	
				Lower	Upper	Female	Male
Total EI Score	.019	2.36	3.93	.626	17.219	109.79	100.92
SE-Emotional Expression	.016	2.72	5.54	3.536	23.714	106.36	93.75
Interpersonal Total	.001	4.13	3.48	7.044	20.706	111.86	97.83
IS-Interpersonal Relationships	.001	3.48	2.93	7.305	19.591	105.99	92.50
SM-Optimism	.010	3.34	4.66	2.096	20.791	110.01	98.50

Results

For each of the research questions above, results indicate that, barring the emotional expression sub–section of the Self-Expression category, there is no significant ($p < .05$) interaction between student progress, delivery methodology, or number of transformative classes taken and ESI levels. Even though the earlier correlation matrix indicated there may be, MANOVA indicated otherwise. Furthermore, while the MANOVA exploring prior professional experienced indicated some significance in the

areas of Self Expression-emotional expression, Stress Management total, and Decision Making-problem solving for online students, there appeared to be no significant moderation other than Self-Expression total levels.

Summary

Initially, 156 students responded fully to the required instruments. Of these, 147 remained after removing those designated as invalid by the instrument's internal measures. These were analyzed using a combination of Kolmogorov-Smirnov, Pearson's Correlation Matrix, MANOVA, and Hayes's *PROCESS* tool for moderating variables. All analyses were performed using bootstrapping as tests for normalcy were not significant. Results demonstrated no significant differences between students' progress and all ESI levels except for Self Expression-emotional expression, which was significant when delivery methods were combined, and for online delivery when split. Furthermore, no significant differences were found between the number of transformative credits taken and any ESI level. The analysis of prior professional experience determined it is significant to more ESI categories than any of the other variables. However, as a moderating variable it does not have significance with enough of the ESI levels to carry any import. These analyses confirmed all of this study's null hypotheses. In the next chapter, I will interpret these findings, present its limitations, suggest on-going research based upon them, and relate them to social change.

Chapter 5: Discussion, Conclusions, and Recommendations

Introduction

Existing studies into the development of ESI have left a gap in the areas of online education and holistic healthcare. The purpose of this quantitative, quasi-experimental study was to determine if online education can develop students' ESI at levels similar to on-campus programs. In addition, in this study I explored the relationship between classes designed with elements of transformative learning and changes in ESI. The study was conducted at a small, private, for-profit, holistic healthcare college serving traditional and online learners. The college is based in the southwestern United States and serves online students across the country.

I used Pearson Correlation, Kolmogorov-Smirnov statistics, Box's tests, MANOVA, and ANOVA to analyze the results of the EQ:i 2.0 (MHS, 2011) survey. This survey examined respondents' ESI in relationship to their total score, five primary categories (Self-Perception, Self-Expressions, Interpersonal, Decision Making, and Stress Management), and 15 subscales (self-regard, emotional self-awareness, self-actualization, empathy, social responsibility, interpersonal relationship, flexibility, stress tolerance, optimism, reality-testing, impulse control, problem-solving, emotional expression, assertiveness, and independence). Key findings revealed a significant difference in the development of ESI across all delivery methods only within the area of emotional expression ($F(1, 83) = 1.884$, $p = .005$). Similarly, comparing online and traditional delivery methods, online demonstrated a significant relationship within the same emotional expression subscale, $F(1, 57) = 2.072$, $p = .013$, while traditional delivery

demonstrated no significant development in any scales. Finally, there were no significant differences found in the development of students' ESI based upon the number of classes taken that contained aspects of transformative learning.

I found prior professional experience to predict the levels of ESI within emotional expression ($F(1, 33) = 1.676$, $p = .025$) and Stress Management ($F(1, 33) = 2.072$, $p = .013$) when all students were combined. However, when separated, only online students demonstrated a correlation between their prior professional experience and the Stress Management ($F(1, 27) = 1.998$, $p = .013$) and Problem Solving scales ($F(1, 27) = 1.758$, $p = .035$). Traditional students demonstrated no significance between professional experience and their ESI scores. Prior professional experience was also analyzed as a moderating variable between students' scores and their progress. Overall, while prior professional experience appeared to have the highest correlation to the dependent variables in the Pearson Correlation Matrix, it did not appear to be a significant moderating variable between credits earned and ESI levels. Findings revealed the only significant relationship existed between prior professional experience as a moderating influence on Self-Expression and program progress at average ESI levels.

Finally, as an addition to the literature, I analyzed ESI levels between genders for significance. Results revealed a significant difference between men and women in the total score, emotional expression, Interpersonal total, interpersonal relationships, and optimism subscales (see Table 9). In all cases, women demonstrated higher ESI levels wherever significant differences were discovered.

Interpretation of the Findings

Overall, in relationship to the first hypothesis, I found little significance in the development of ESI for online and traditional students in these holistic healthcare programs. A possible explanation for the lack of significance in the findings relates to students' incoming levels of emotional intelligence. Larin (2014) found that healthcare students' EI did not develop across the progress of a program due to their higher than average EI at the time of enrollment. MHS (2011) indicated scores greater than 110 are considered high, while scores below 90 are considered low, and all others are considered mid or average. A look at Table 6 demonstrates the means for all ESI measures was greater than 100. A further analysis of the scores by credits-earned categories of 0, Quarter 1 (1–14 credits), Quarter 2 (15–29 credits), Quarter 3 (30–44 credits), and Quarter 4 (45–60 credits) not only revealed the lack of significant change as students progressed through their program, but also revealed a majority (57.89%) of incoming students had an ESI level already at the high category and 31.58% were in the average range, while only 10.53% would be considered low and may need improvement (see Figure 2). These ratios remained relatively consistent throughout all categories. As with Larin's study, this may indicate that the lack of significance is a function of the majority of students entering the programs with existing high levels of ESI.

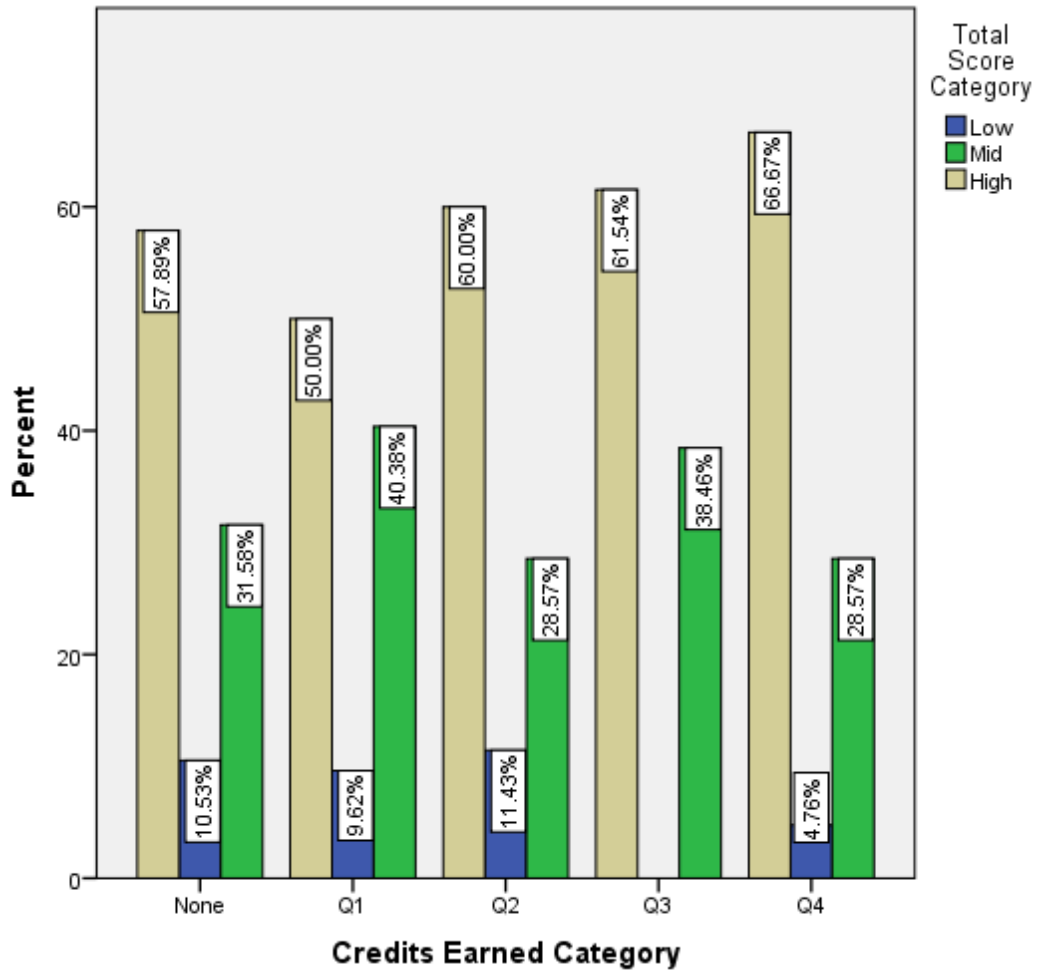


Figure 2. ESI levels by quarter

For the second hypothesis, regarding online education and the difference between online and traditional classes, my review of the literature revealed studies by Lindsey and Rice, (2015) and Lindsey (2014) that indicated, similar to this study, no significant difference between online and traditional students. Like this study, theirs were cross-sectional and quantitative. However, contrary to this study, both Lindsey and Rice and Lindsey discovered a significant difference in students' ESI based on the number of online courses they have taken. The lack of significance within online education at this

study may again be attributed to the incoming ESI levels of students seeking training in holistic healthcare. Students in Lindsey and Rice and Lindsey were business students who may not inherently have higher levels of incoming ESI.

The third hypothesis that I examined was the relationship between ESI and classes taken that contain elements of Mezirow's (2003, 1998, 1997) transformative learning theory. My literature review revealed no studies examining the development of ESI for online students taking transformative learning classes. As such, this study's finding of no significant difference could have contributed to the literature in that area. However, the foundation of that finding may be inconclusive due to the high levels of incoming students' ESI.

Finally, while not a primary research question, similar to Sierra et al. (2013) and Parker et al. (2005), female respondents in this study did demonstrate higher levels of ESI wherever a significant difference appeared. However, these findings must be interpreted with caution due to the overwhelming disparity of female and male students. The vast majority of respondents were female (91.67%). This disparity may have unduly influenced the gap in development.

Limitations of the Study

The quasi-experimental and cross sectional nature of this study limits generalizability due to the inability to explore pre- and posttesting, as well as track the same students throughout the study to determine their individual development (Campbell & Stanley, 1966; Frankfort-Nachmias & Nachmias, 2008). While the number of respondents was sufficient to produce statistical relevance for the MANOVA, it was short

of the G*Power (Faul et al., 2009) recommendations for ANOVA with main effects and interactions between all of the scales. This is another limitation because even with the 1,000-item bootstrapping I used for all statistical tests due to the nonlinearity of the data, any generalization of these findings outside of the study site must be done with caution. The consistently higher than average ESI levels of incoming students also limits the relevance of this data to any context that has similarly high-functioning and emotionally intelligent students. The final limitation was that the disparity of respondents' genders may have unduly influenced the significance, or lack thereof, of the results.

Recommendations

The results of this study revealed several areas of opportunity for future research. Most notably was the potential effect of students' incoming ESI on their future ESI development. A longitudinal study that tracks the same students over the course of their 2-year program and tests for their ESI at multiple points within the program could provide a closer look at the development of ESI for students who came into the program with lower initial levels. In addition, the smaller number of participants (n = 156), combined with the gender disparity present in that sample population (91 or 67% female) point to a need for a similar study with a much larger population that is better balanced to reflect not only the site of the study but overall census statistics. Such a study could produce results that are generalizable not only to similar institutions, but potentially, other programs of study at other colleges and universities.

Regarding the interaction between transformative learning as an adult education theory and its role in the development of ESI, classes that are intentionally designed with

these elements in mind need to be created. Once implemented, an additional longitudinal study that tracks students' ESI development while enrolled in these classes would help solidify any potential relationship between these elements. Ideally, this would be completed for both online and traditional delivery methodologies so as to contribute further to the educational technology body of literature.

There is also great potential to link the development of ESI in online holistic healthcare students with the requisite levels of ESI necessary to be a successful professional practitioner. This study gathered existing levels of professional experience to determine its effect as a mediating variable on the development of ESI. In order to further determine the efficacy and success of online training in this arena, a study that gathers ESI levels of practicing professionals and then compares them to students would help determine if there are gaps between the training outcomes and professional needs. Once gaps have been identified, courses could be created to help fill that gap and better prepare students to be successful practitioners.

Implications

In this study, I sought to bring together three increasing areas of societal interest: holistic healthcare (Jafari et al., 2014; Litchy, 2011; Pérard et al., 2015; Woodward et al., 2012), online education (Online Learning Consortium, 2016), and ESI (Cherry et al., 2014; Collins, 2013). There are clear indications that practitioners who are well-trained and have appropriate levels of ESI may be able to better serve their clients and protect their overall health and wellness (Cherry et al., 2014; Collins, 2013). The results of this study revealed that, within this particular context, there is little significant difference in

the growth of ESI for online students, due in part to their higher levels of ESI when entering their programs. However, without having tracked students with lower ESI levels at enrollment through a longitudinal study, it is uncertain if development may be happening.

At the individual level, the results of this study imply students choosing holistic healthcare as a career already have an above average level of ESI. This may help the institution determine who are better candidates for the training, as well as help those with an inherent aptitude for this work to find their calling. In turn, an increase in the number of prepared holistic healthcare practitioners carries the potential to positively influence the health and wellness of their families and communities. In addition, it is possible that the more individuals who live in a community or society that have increased levels of ESI, the more that community or society may function and grow in a healthy way.

At the institutional level, the findings of this research imply some potential to begin developing and implementing classes that train students in EI. However, due to the high levels of students incoming ESI, this may not be necessary or vitally important to students' success as practitioners except for those students who enter programs with lower levels. It's possible the institution could develop a series of classes for these students to help bring their levels to the middle or high ranges. The implementation for online classes at the institution is that they are neither increasing nor decreasing students' ESI. In other words, the existing course and instructional paradigms are sufficient for maintaining students' ESI.

Perhaps the greatest implications from this study are for directing future research that may positively affect social change. As I described in the recommendations section, there are clearer paths for researching the interaction between holistic healthcare, ESI, online education, and professional practice. The significance of filling these gaps is an increase in successful holistic healthcare practitioners within graduates' communities. As a consequence, due to holistic healthcare's focus on prevention and nonpharmaceutical approaches to achieving wellness (Jafari et al., 2014; Marshall et al., 2011; Pérard et al., 2015; Woodward et al., 2012), those communities may experience increased levels of health with decreased reliance on symptomatic treatment. The focus on online education implies this benefit could be realized anywhere, including more remote or rural locations that do not have similar training within commuting distance.

Conclusion

It is undeniable that affordable and effective healthcare is a necessity in today's society. It is also self-evident that realistic, available, affordable, and effective preventative care is preferred to expensive symptomatic care. Holistic healthcare practices such as eating based upon holistic nutrition, hypnotherapy, yoga, traditional Chinese medicine, reiki, massage, and others treat the whole person – mind, body, and energy – through behavior changes that focus on preventing disease and maintaining a healthy lifestyle. However, these approaches are often not covered by existing health insurance paradigms and can be expensive to pay for out-of-pocket, so much so, that many individuals and families cannot afford these treatments. In order to decrease these costs and increase availability, communities need more competent and well-prepared

practitioners. This means creating educational systems that are available to as many students as possible. While it is unrealistic to build and staff brick-and-mortar institutions across the country, online education carries the potential to reach into any home anywhere.

As such, it is critical to ensure students are receiving the education and development necessary to become practitioners. This means, similar to and arguably even more than allopathic practitioners, holistic healthcare providers must have appropriate levels of ESI to relate to and manage their own and their clients' emotional landscapes. Even more so, as holistic healthcare providers spend significantly more time working one-on-one with their clients through life coaching, hypnotherapy, massage, energy work sessions, and the like than do allopathic caregivers. If the overall health of human kind is to improve, a balance between preventative and symptomatic care must be achieved, and this balance must include holistic approaches to care facilitated by practitioners with appropriate levels of ESI.

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